

iBlog: Empowering adult learners through blogging with iPads and iPods

By

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TABLE OF CONTENTS

Acknowledgements	5
Abstract	6
CHAPTER 1: Introduction	7
Positioning the researcher	11
CHAPTER 2: Literature Review	14
Empowerment through literacy	14
The use of blogs in adult education	17
The use of digital tablets in adult education	21
Summary	23
CHAPTER 3: Research Methodology	26
Semi-structured interviews	28
Focus groups	28
Participant observation	29
Visual analysis	30
CHAPTER 4: Theoretical Framework	31
CHAPTER 5: Research Project Design	34
The digital technology	37
The software and applications	38
The participants	39

CHAPTER 6: Data Analysis and Findings	44
Introduction	44
Empowerment	47
Blogging	47
Taking photos and video	52
Editing	55
Technology	57
The iPad	60
The iPods	61
MacBook Pros	62
Difficulties with the technology	63
Summary to the technology section	63
Mentoring/ Agents of Change	64
CHAPTER 7: Discussion	67
Adult literacy and empowerment	67
The role of technology in adult literacy	68
Transformation of self in the social context	69
Limitations	70
Future lines of inquiry	70
Appendices	72
Appendix A: Sample interview questions	72
Appendix B: Outline for blogging workshop	73

Appendix C: Letter of information and consent	75
Appendix D: Analyzing the data through colour coding	78

List of Tables

Table 1: Posts Written by Participants	48
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List of Figures

Figure 1: Reflections blog	36
Figure 2: Data analysis diagram	44
Figure 3: Image taken by Shabba	53
Figure 4: Image taken by Richard	54
Figure 5: Image taken by Shabba	54
References	80

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Abstract

Current statistics indicate that 48 per cent of Canadians over the age of 16 struggle with low literacy skills. The federal government has also deemed the development of digital literacy proficiencies amongst Canadians a national priority as this country moves toward a digital economy. This research project examined whether adult learners with literacy challenges would feel empowered as a result of creating content for a blog through the use of digital technology. The researcher attempted to understand the impact that blogging and using different types of technology could have on an individual's self-esteem and whether those feelings of empowerment would encourage an adult learner to pursue further education. Although this research project only ran for a period of six days at a literacy program, there was a noticeable difference in how the participants viewed themselves after they created digital content. Further findings from this project also indicated that there is a gap in research dealing with the impact of technology on adult literacy.

Chapter 1 - Introduction

The Canadian Council on Learning stated in a 2008 publication that, “48% - almost half – of all Canadian adults over the age of 16 experience some degree of difficulty in their ability to read, write and understand effectively in English and/or French” (Canadian Council on Learning, 2008, p. 7). These adults struggle on a daily basis with the consequences of having low literacy skills.

Literacy is defined as “the ability to understand and employ printed information in daily activities at home, at work and in the community - to achieve one's goals, and to develop one's knowledge and potential” (Statistics Canada, 2005, p.11). The United Nations Educational, Scientific and Cultural Organization (UNESCO) regard literacy as a human right and the foundational structure to leading a meaningful and productive life. UNESCO also believes in literacy's empowering ability to transform lives by ameliorating economic and health outcomes for individuals and their families (UNESCO, 2001).

Human Resources and Skills Development Canada (HRSDC) measures adult literacy (which includes also numeracy, document use and problem solving) on a scale from one to five, with Level 1 being the lowest level and Level 5 the highest (HRDSC, 2012). According to the HRSDC's adult literacy indicator, individuals need be at a Level 3 to be able to navigate Canadian society successfully, however a report that presented data from the

2003 International Adult Literacy and Skills Survey (IALSS)¹ indicated that 12 million Canadians over the age of 16 were performing below that benchmark at the time the study took place (Statistics Canada, 2005).

The impact of low literacy on an individual's life is profound. Adults with lower levels of literacy will encounter difficulties obtaining and keeping long-term employment and are more likely to live in a low-income household (Ontario Literacy Coalition, 2009). Low literacy has also been associated with poor health outcomes as the inability to understand written medical instructions may create serious barriers to an individual's well being and that of his or her family (Pignone, et al., 2005).

Lower levels of literacy in a population also impact Canada as a nation. According to the 2008 report, *Reading the Future: Planning to meet Canada's future literacy needs*, low literacy in the population means "our country is limited in its ability to access skilled workers needed to support economic growth and a strong society" (CCL, 2008, p. 8). The non-profit organization, Essential Skills Ontario² stated in a 2009 report that 4.3 million Ontarians had insufficient literacy skills to obtain meaningful employment in today's economy. Despite the number of citizens requiring help to improve their literacy skills, the Ontario government's Literacy and Basic Skills (LBS) upgrading programs had only enough funding to help 67,000 individuals in 2010-11 (Ministry of Training, Colleges and Universities, 2011). The purpose of the LBS program is to provide help to people "whose

¹ The IALSS is the Canadian component of the Adult Literacy and Life Skills (ALL) survey that compared the literacy skills of participants from seven countries including Canada (Statistics Canada, 2005).

² Essential Skills Ontario (ESO) was formerly known as the Ontario Literacy Coalition. Some of the reports and papers from the ESO still reflect their former name.

literacy skills fall below the Grade 9 level.” The LBS also provides academic upgrading programs for those wishing to enter college or university (Ministry of Training, Colleges and Universities, n.d.).

The definition of what it means to be literate has changed rapidly in the past few years particularly when associated with skills required for a contemporary workforce. Today’s digital economy asks much more from employees and those demands go beyond the traditional reading, writing and knowing arithmetic. A 21st century workforce must also be comfortable learning and operating a wide range of digital technology ranging from desktop computers to smaller devices such as tablets.

The Ontario Adult Literacy Curriculum Framework (OALCF) is a document providing a framework organized by the levels of competencies adults should have in order to be considered productive at work, at school and within their community. This framework supports LBS programming and it contains the use of digital technology as a competency. Those competencies include basic skills such as creating and saving computer files to more complicated tasks like creating and posting content to a Wiki page (Ontario Ministry of Training, Colleges and Universities, 2011).

There are many factors which deter adults from upgrading their literacy skills and some of these factors are directly tied to the level of funded support provided by the government. For example, there are lengthy waiting lists for literacy programs and so participants must wait for an opening to begin their education, a process that could take months. Financial reasons, such as lacking the funds to pay for childcare while at school or having money to buy bus tickets to get to classes, can also become deterrents that keep individuals from upgrading their literacy skills (Maxwell & Teplova, 2007).

The lack of confidence in one's ability to learn is another barrier that manifests often in adult education. Adkins and Ozanne (2005) stated that adults with low literacy feel stigmatized, as they hold the belief that society perceives them as failing to meet pre-determined societal standards. The way an adult feels about his or her ability to learn can hinder or even put an end to their goals to improve their literacy skills. Research has shown that having a positive academic identity can boost an adult learner's self-esteem and encourage the student to further his or her education (Terry, 2005). The potential of a person who is engaged in his/her own learning is limitless and, in a sense, intoxicating. Giroux (2010) describes this as connecting "knowledge to power and the ability to take constructive action" (p.1). The individual knows that with knowledge comes the ability to change socio-economic circumstances, and perhaps even society, for the better, as literacy can be considered an agent of social change (Blake & Blake, 2005), however an adult learner may face an uphill battle of personal uncertainty before reaching that point (Bjarnason, 2006).

This research project explores whether adult learners with literacy challenges will feel empowered as a result of creating content for a blog through the use of digital technology. Other tangential considerations surrounding the main research question are: would a feeling of empowerment encourage him or her to pursue higher educational goals? Is there a place for blogging in adult literacy programs? Would access to digital technology, such as an iPad, assist individuals with low literacy in improving their skills? Is participation in digital culture a motivational factor in developing literacy skills?

In an attempt to understand these issues, I ran a workshop for seven adult students who were participating in a literacy program at a social service agency located in the City of

Oshawa. The participants created blog posts using iPads, took images and video with iPods and created digital stories through the use of editing software on a MacBook Pro³.

An extensive literature review was conducted in an attempt to understand the place of this project amongst the studies already conducted. I found a most notable gap in the literature in terms of iPads and iPods being used specifically in classes for adults who are improving their literacy skills. There are however studies researching the efficacy of iPads and other tablets in elementary and higher education settings. There are also some studies on the integration of iPods and other types of portable players in schools at the post-secondary level but not in adult literacy situations.

Positioning the researcher

The impetus for this research project on adult literacy came from personal experience and, although it is not an autoethnography, I did use my experience as an adult learner “as a starting or vantage point from which to explore broader sociocultural elements, issues or constructs” (Eamer, 2006, p. 3).

I have always been very aware of issues surrounding literacy since I was a small child. Three of my grandparents were illiterate and both my parents, although they had attended school, were forced to learn a new language when they immigrated to Canada. As a result, their employment options were dictated by how well they understood and spoke English. Although they both learned enough English to function at work, they were never comfortable speaking that second language. At the age of 11, I moved to Portugal, my parents' birth country, and then I was the one who had to manage a new language. English

³ The iPad, iPod and MacBook Pro are digital devices manufactured by Apple Inc. (Apple Inc., n.d.)

was the only language I understood and I considered it to be my mother tongue. It took years to learn how to speak Portuguese without a noticeable accent but in many ways, writing and reading was the biggest difficulty. During that time in my life I was unable to speak, read or write in one language fluently as I began to forget how to communicate in English and had yet to master Portuguese. This phenomenon, known as *semilingualism*, has been studied rigorously and is described in Eva Hoffman's book, *Lost in Translation* (1990). Some years later I returned to Canada as an adult who had not completed high school and consequently lived with low literacy skills, the effects of which were felt on a daily basis. I did not even possess the knowledge to fill out a work application properly. With limited skills and education I found myself working at minimum wage jobs until I was able to enter a program to help uneducated youth find employment. There was one caveat though: participants were required to complete high school through correspondence courses while in the program. I eventually obtained my Ontario Secondary School diploma with excellent marks and that encouraged me to continue my education.

I'm very aware of how important literacy is especially since I can look back to those years where, in both Portugal and Canada, having low literacy skills negatively affected many different aspects of my life. Interestingly enough, my belief was that I was part of a very small group in Canada, however reading reports in the past two years on Canada's literacy problems opened my eyes to this pressing issue. Known as Canada's secret shame, many people are unaware of the struggles that almost half the population of this nation are facing as they live with the effects associated with having low literacy skills (Bjarnason, 2006).

As I began to think about issues I would like to research, I reflected on my own experience as an adult struggling with low literacy and a progeny of that problem: low self-esteem. I knew that as my literacy skills enhanced while pursuing my high school diploma, my confidence grew and along with that I noticed that my eagerness to further my education also increased. Consequently I felt more in control of my destiny and empowered by the knowledge I had acquired and, as studies have demonstrated, seeing the possibilities of a better future is definitely a powerful stimulus to pursue further knowledge (Adkins & Ozanne, 2005).

Chapter 2 - Literature Review

The literature review is divided into three parts focusing on the key issues related to the research questions: adult empowerment through literacy, the use of blogs in adult education and the role of digital technologies in adult literacy.

Empowerment through literacy

Literacy skills are essential to the financial health of a nation and to the economic security of an individual (Maxwell & Teplova, 2007) but there is also another dimension to the importance of enhancing one's literacy skills: the sense that one is entitled to participate in literate cultures and to have a voice in public discourse which Norton Pierce (1995) states, as "an awareness of the right to speak" (p.18). For many adult learners that individual satisfaction transforms into a desire to continue on a journey of acquiring knowledge while inspiring others to reach for the same goal thus disrupting the status quo (Freire, 1999). This could be defined as emancipatory literacy, a concept forwarded by Donaldo Macedo and Paulo Freire in their book, *Literacy: Reading the word and the world* (1987), suggesting students should not only learn how to read but also become aware of their histories to understand and question their roles in society. Furthermore the concept promotes recognizing how dominant powers control the subjugated so that the oppressed can escape from their own surroundings (Kincheloe, 2005). This theoretical framework developed by Freire is known as Critical Pedagogy, and is a theory rooted in the idea of

social and educational equality for everyone in society. Critical Pedagogy also asserts that individuals become empowered and self-sufficient by taking charge of their education and, in essence, by learning how to be self-directed learners (Kincheloe, 2005).

The principle of self-directed learning is a good fit with adult literacy. Self-directed learners take charge of their own learning by figuring out exactly what their goal is and then making a plan to get there. For example, a goal a person with basic literacy skills may set for themselves is going from a literacy level two to a level three. This is done by assessing authentically what it is that the person already knows and what skills they possess to reach that goal. Once they know what the goal is and what educational arsenal they currently have, self-directed learners can plan how they will reach the end result they wish to achieve while keeping tabs on their progress. The self-directed learner must also possess the maturity and self-awareness to change their plan if it seems the route that they are taking isn't working (Ambrose et al, 2010). This process is rarely completed by the individual alone; there may be other learners and facilitators supporting and giving advice however it is the learner who ultimately makes the decisions that impact their educational journey. This process is suggestive of Vygotsky's Zone of Proximal Development (1978), a concept defined as the gap between what children can achieve independently and what they can accomplish with the help of a teacher, parent or even more knowledgeable peer.

This is a very interesting aspect of educational emancipation. It is not a solitary journey but one that most individuals make as a group as "social change is accomplished in unity" (Heaney, 2005, p. 2). When a person decides he/she is going to enhance his/her literacy skills, it is usually done by joining a group of like-minded individuals. Within these groups there is a wonderful potential for learning in a collaborative setting. According to Abasi et

al. (2007) these groups provide fertile grounds for cognitive apprenticeship. This is when one person in a group, who has stronger skills, takes the lead and becomes a mentor to others.

The intriguing aspect is found in how one person can spur others to become mentors to a group thus spreading the power of knowledge at an even faster rate along with the possibility of social change. Mein (2010) describes how the participation in a group where people are working toward common educational goals can be linked to social changes in the lives of the people involved.

Transformative learning, the theoretical work of Jack Mezirow, ties in well with adult literacy. According to this theory, adults learn by changing the way they see or understand an idea or concept (Bullock, 2011). In the case of a person who believes that he will always live below the poverty line and have to rely on social assistance for the rest of his life, transformative learning theory suggests that the individual may begin to think that he can change the circumstances he is living in, and that this change may come due to an effort to upgrade his literacy skills. As he learns new skills he begins to think critically and independently about his circumstances and how they can be changed. His concept of what his life is at the moment and what he believes will always be changes into what it can become.

Brookfield and Holst (2011) suggest that Transformative learning leads people down a path of even greater alterations in their lives. They argue that adults going through transformative learning change how they treat others as they begin to see the world through a political and social lens. They begin to ponder the purpose of life, and that leads to bigger questions about social equity. Learning to read and write is closely tied to social

action and is therefore inherently political. Paulo Freire (Maybin, 1994) wrote that learning to read and write was just the beginning in terms of an adult learner expanding on his/her knowledge. Freire posited that it was when the adult student reflected critically on the language he or she was acquiring that real transformation would take place in that person's life.

The use of blogs in adult education

A blog (short for weblog) is a form of online communication that consists of articles, also known as posts, which are usually written in the first person exposing the opinions of the author to a worldwide audience. These articles are posted on the blog in chronological order, from newest to oldest, and usually archived into different categories over time. The posts also allow readers to leave comments making blogs a two-way street of communication. There are blogs on basically every topic imaginable and, while some blogs are the result of a collaborative effort, many are personal and maintained by one person (Wordpress.org, n.d).

Blogging has been found to be a useful and empowering learning tool for students of all ages and particularly for adult learners (Griffith & Woong, 2010; Park, Heo & Lee, 2011). Park, Heo and Lee researched how blogs could be used in informal adult learning and found several interesting outcomes with respect to the impact of blogging on the 70 adults who participated in the study. The researchers demonstrated that blogging was an informal learning practice that enriched the lives of the participants, the majority of whom reported positive learning experiences while blogging (Park, Heo & Lee, 2011).

There is a natural connection between informal adult learning and literacy. Adults who

participate in this type of learning are self-directed and independent, and they seize the opportunity to learn instead of waiting for opportunities to come to them. The learning is unscheduled and unpredictable – it just happens (Livingstone, 2007). Literacy works the same way on many of those levels. For example, the adult learner may begin reading a magazine she found on a bus or try to make sense of the stock market while watching a business channel on television. The connections adult learners make between old and new knowledge does not necessarily have to happen while seated at a table with a teacher. Tough suggests (1999) “informal learning just seems to be a very normal, very natural human activity”(p.1).

Griffith and Woong (2010) conducted a study in Australia that involved asking disadvantaged young adults, who were attempting to enter university, to use blogs in an English literature course. Simultaneously, they also conducted the same study, but with students already attending university. Both groups were able to connect to each other through their blogs during the course of the study.

The results found that the underprivileged students, after some initial difficulties, enjoyed the blogging process and were able to enhance their literacy skills as they used the blogs to express their thoughts on literature and publish their own poetry and essays. As a result some of the participants were accepted into university, but the researchers also pointed to the difference in how the students felt about themselves before and after they had started blogging. Some of the students were homeless and were dealing with addiction issues. Some of the students felt it would be difficult to get into university because of their backgrounds but the blogging experience boosted their confidence as their written projects received positive feedback from students already attending university and the general

public (Griffith & Woong, 2010).

Griffith and Woong did indicate issues that must be kept in mind when teaching underprivileged groups. Time must be taken to teach basic computer skills as these adult learners, having experienced socio-economic difficulties as children and young adults, may not have had exposure to that type of technology in school or in the home. Researchers also mentioned that the digital divide was a very visible problem for the underprivileged students. As some were homeless and others were living in shelters they did not have consistent access to a computer with Internet to be able to blog on a regular basis. Thirdly, Griffith and Woong (2010) pointed out that time must be taken to make the students comfortable with the thought of publishing their work to the World Wide Web and opening up essentially their thoughts to anyone willing to read them. The authors of the report make mention of sitting “long hours with some students to create in them a confidence to write from their own experience”(p.21). The adult learner’s frame of mind and background must be taken into account before tackling such a project.

Blogs have also been used in English as a Second Language (ESL) classes with adult learners with good results however, with that type of learner, researchers have found there are certain factors that must be considered. Sheetz and Curcher (2008) experimented with blogging in two courses being taught at a college in the United Arab Emirates (UAE). One of the first issues the researchers ran into was the fact that, although the students were adults, many didn’t show the characteristics associated with adult learners as described in the learning theory andragogy. Andragogy, a theory in Adult Education developed by American educator Malcolm Knowles, states several assumptions on adult learning including that adult students prefer to learn in individualized settings without much

direction or guidance from teachers (Knowles et al., 2005).

Sheetz and Curcher felt the adult students were not self-directed nor were they interested in discovering things on their own. These learners were relying on their teachers to direct their learning and were not comfortable acting on their own (Sheetz & Curcher, 2008). The researchers had introduced the blogs into a first-year classroom and a fourth-year classroom and, although they reported similar results from both groups of students, they felt that, regardless of the year the student was in, the learning needed to be scaffolded. In other words, the student learning was done in increments; easier tasks were introduced first and only when these were mastered would the students move on to a slightly more difficult assignment. The facilitators found that students required support on an on-going basis until they were comfortable to blog on their own. Furthermore the type of scaffolding needed to be changed during the process. This seems to indicate that when blogging is introduced as an activity to enhance the literacy skills of adult learners, the plan to do such needs to be flexible (Sheetz & Curcher, 2008).

Other disadvantages found with using blogs in an ESL situation were students encountering issues with technology, being fearful of their work being exposed to others and subjected to public opinion, not wanting their writing errors to be seen by others and being unhappy with the feedback received by other readers (Jones, 2006).

The activity of blogging has also been identified as having the potential to teach 21st century literacy skills (Johnson, 2010). The words, 21st century skills, which also includes literacy, has become the axiom used to describe the desired aptitudes a contemporary student from this period must acquire in order to be successful in the workplace. Those required skills, identified by the Ontario's provincial government, include using computers

to create documents, understanding how to navigate the Internet and even how to send a text message using a cellphone (Ministry of Training, Colleges and Universities, 2011).

When people blog they are writing for an online audience therefore a blogger is required to know the steps necessary to post their views on the Internet for others to see. This requires an understanding of a digital procedure that in turn falls in step with 21st century skills (Collier, 2007).

According to Johnson (2010), “blogs promote critical and analytical thinking and allow students to create content in ways not possible in traditional paper-and-pencil environments” (p.179). This is made possible due to this medium’s online, digital nature. Blogs allow for not only written material to be posted but also video and audio content. Being online facilitates the process of sharing the information, allowing for the creation of networks surrounding a blog subject to be formed easily.

The use of digital tablets in adult education

Computer-based technologies have been part of adult education for some time now and these technologies, ranging from mobile phones to Web 2.0 to tablets, are mainstays in adult learning (Kidd & Keengwe, 2010). The sale of digital tablets has been on the increase in the past two years, as the popularity of this device for home and educational use has grown steadily. Its ease of use and mobility make it a viable alternative to a laptop (Woyke, 2011).

There have been many studies on tablet PCs in recent years, such as the one conducted by Van Oostveen, Muirhead and Goodman (2011) at the University of Ontario Institute of Technology. That particular study did not find substantial benefits to student learning

when using a tablet PC, however the authors did recognize that more research was needed in the use of tablets in education. By the end of 2011, there was an increase in studies specifically on the use of smart tablets – for example, the iPad – in educational settings that ranged from kindergarten to post-secondary.

These studies are indicating that students enjoy working on tablets in an educational environment (Browning, Dickerson & Williams, 2009). Preliminary research also seems to show that the use of digital tablets, such as the iPad, in a classroom, enhances learning for students (Lohr, 2011).

Students are more engaged in classroom learning when using a digital tablet and teachers have noticed that schoolwork, although more spontaneous, is more creative (Roschelle, Tatar, Chaudhury, Dimitriadis, Patton & DiGiano, 2007). As well, there is recognition that this new technology favours “constructivist and collaborative approaches to learning, and flexible and adaptive approaches to teaching” (Manuguerra & Petocz, 2011, p.61). These findings align easily with the mission statements of most, if not all, literacy programs.

Manuguerra and Petocz (2011) reported on the use of iPads to promote student engagement at the post-secondary level. Their study, which covered a period of 15 months, found that student engagement increased in the classroom and outside of it with the use of iPads. An example of that increased engagement can be found in how lectures in the classroom changed when the iPad was used to deliver them. The authors found that static slides were switched to more lively presentations with the ability for the slides to be annotated on the iPad itself. The presentations were also recorded allowing students to access them at a later date. When the authors conducted an anonymous survey to evaluate

the value of running the lectures with the iPad, all of the students who responded expressed no interest in returning to a traditional form of lecturing in the classroom (Manuguerra & Petocz, 2011).

As stated above, a review of the literature (up to and including 2012) did not reveal published studies on the use of digital tablets in areas pertaining to adult literacy. There are however several literacy projects involving tablets being conducted in India and Bangladesh (News BNN, 2011). Although not formal studies, these projects still contribute to the discussion surrounding the place of tablets in adult literacy setting.

These projects have been made possible through the production and distribution of very inexpensive tablets such as the Amadeyr and the Aakash. In the case of the Amadeyr, it is being used to teach people how to read and write in rural Bangladesh and the project has had good results. A video on YouTube, which was produced by Amadeyr Cloud Limited (the company that produces the Amadeyr tablet), shows a 70-year-old woman named Asiaa Khatun using a tablet to practise writing letters from the Bengali alphabet (YouTube, 2011). In the video, Khatun, who is a farmer, goes on to explain that her farming practices have changed as a result of having access to the tablet. As her literacy skills improve she is able to decode and use the information provided to her through the tablet in ways that benefit her farm and, as a result, she has become an agent of social change as she shares the knowledge she has acquired with others.

Summary

While conducting the research for this project at the social service agency where it ran, one of the workshop participants asked me why I had chosen to run this project in an adult

setting instead of at a school with children. I answered that adults, even if they are enhancing their literacy skills, have much to offer to society in terms of knowledge and life experiences and therefore research done in this area of education would be very valuable.

A literature review's purpose is to provide a summary of research conducted by credible researchers on a particular subject (Taylor, n.d.). I reviewed the literature on three different topics, all interconnected with the common thread of adult literacy running through them. The principal issue encountered was the lack of studies associated with adult literacy in general. Comings (2007) states that "the field of adult literacy only has a small foundation of scientific research" (p.2). Comings cites several reasons for this predicament in his report including: research still seems to be focused in the K-12 area as academics are not seeing the potential in adult literacy studies; budgets for adult literacy programs are small and some are disappearing making it difficult for a researcher to get involved in a long term research project with an adult literacy program and, as well, for a program to be able to support a researcher in their midst. As well, another issue cited, was the lack of theory-based models of instruction in adult literacy.

I found other gaps in the literature and these areas would certainly benefit from more research. The search for studies on introducing blogs into adult learning failed to show if there had been any follow up on the participating students to determine if they had continued blogging after the study was completed. This information is relevant and would be important to collect to find out the impact blogging may have on the adult learner over a longer period of time. A person who continues blogging, sharing their ideas and growing as an individual is indicating that the blog has become an integral part of their informal learning experience. As well, since a blog is a method of sharing ideas and creating

dialogue (Jones, 2006) it would seem that the adult learner, who is now a blogger has assumed the role of information curator or that of a facilitator who can help others in their journeys of acquiring literacy skills.

As aforementioned, the field of adult literacy has little research in terms of integrating technology to enhance literacy and digital literacy skills. With the great push by administrators, different levels of government and educators to teach 21st century skills in the classrooms (Spencer, 2006), why this area is lacking in academic research is not only perplexing but alarming.

My personal opinion on this matter, which formed after spending countless hours trying to find adult literacy studies in line with my research questions, is that undereducated adults are perceived generally as not having much to offer to society. The focus seems on trying to find solutions to problems in the K-12 and/or post-secondary education settings while ignoring those that have already gone through the system without successful outcomes. Although I acknowledge the importance of addressing educational issues at the elementary, high school and post-secondary levels of schooling, overlooking a sizeable group of individuals with a large expanse of life experiences and knowledge gained from informal learning situations does a community a disservice. When these adult learners are not included in the public sphere, it is not only these individuals who experience that missed opportunity but also the communities of practice they would like to contribute to who suffer from their non-participation (Carter, 2006).

Chapter 3 - Research Methodology

This study used a qualitative approach in an attempt to understand if individuals with low literacy skills might feel empowered after learning how to create content for a blog using an iPad, iPod and MacBook laptop. I chose the qualitative method due to its application in “context-specific settings”(p.600) such as a literacy program, which allows a researcher to focus on understanding the occurrences he or she is observing and documenting (Golafshani, 2003). The nature of qualitative research, composed in a straightforward and casual manner with “detailed, rich and thick descriptions” (Johnson & Onwuegbuzie, 2004, p. 14) was also in line with the issue I was researching, which is deeply rooted in social equity issues revolving around education. This research project asked participants to reflect on their educational journeys, what had brought them to the basic education program they were attending and their thoughts on digital technology. Using a semi-structured interview method, participants were required to reflect on their past life experiences and future aspirations, revealing through their conversations disappointments, dreams, fears and moments of pride. These personal conversations could only analyzed by a person with not only a brain but a heart to capture the nuances and the various shades of grey revealed in these conversations. This is something a computer program that tabulates data indifferently would not be able to do in my opinion.

The research methodology adopted in the collection of data was action research. Action research has been described as an approach to resolve real-world problems rooted in inequality and discrimination (Adelman, 1993; Bogdan & Biklen, 2003). The main foci of

this research methodology is to bring to the surface issues affecting those who are marginalized in the educational realm and to find possible solutions to the unique challenges these groups are facing (Adler & Clark, 2011). O'Brian (2001) simply defines action research as a person or a group of people identifying a problem, devising a solution to the dilemma, putting it into practice and then analyzing the results of their efforts. Described as a practical tool, action research tries to find answers for problems that individuals face on a daily basis but that sometimes go unnoticed, as they do not present themselves easily, such as low literacy. This methodology acts on the data, in many cases quickly, to begin improving the lives of those affected by the issue being researched (Hansen & Brady, 2011; Bogdan & Biklen, 2003).

The research methodology described above fell in line with the subject matter being researched for my project at a social service agency for these reasons: firstly, the issue of adults with low-literacy skills in Canada has been described as a social issue that affects, on a grand scale, the lives of many people on a daily basis but continues to remain hidden (Alexander, 2007). It is a very specific problem, well rooted in issues of inequity such as access to education, access to technology, socio-economic factors, discrimination and so on. It is also an issue where small solutions could potentially have a big impact. As described above, action research is preoccupied with issues of social equity and really wants to make the world a better place by offering possible solutions to problems. As the word action implies, this is not armchair research but rather an exploration that takes place where the issue is occurring allowing researchers to document firsthand at particular locations what they are seeing and hearing (O'Brien, 2001).

I employed four research methods within the methodologies chosen: semi-

structured interviews, focus groups, participant observation and visual analysis.

Semi-structured interviews

Interviewing participants to collect data was an appropriate research method due to the subject matter being discussed, which involved probing participants on their educational challenges, a difficult topic to discuss especially with someone you are not well acquainted with. Elmir et al. (2011) suggest that interviewing participants face-to-face makes discussing difficult topics easier as the two people talking can build a rapport, as the conversation becomes a two-way street of communication. For example, I shared with those that I interviewed a bit about my challenging educational past. This type of interaction between the investigator and participant allows for a complete view of the matter through personalized accounts that are not filtered by awkward unfamiliarity between those involved (Elmir et al., 2011).

A semi-structured interview approach was chosen for this research project for a variety of reasons. Lauded by Adler & Clark (2011) for its flexible nature, this method allows the researcher, who would have a pre-determined set of questions ready for the interview, the ability to modify and customize the questions depending on the interviewee. To further capitalize on the benefits of using a semi-structured interview approach, the questions I posed were open-ended and asked in a manner that would discourage yes/no answers therefore allowing participants to elaborate more on their responses and consequently provide more information, richer in details, as a result (Adler & Clark, 2011).

Focus groups

Conducting a post-workshop focus group was important to this project due to the inherent collaborative nature of this data collection technique (Hoskyns, 2011). Described as a method to draw out information by allowing participants to respond to comments another person in the group has made (Kitzinger, 1994), this research method weighs heavily in allowing group dynamics to dictate where the conversation will go. As Hoskyns states (2011), these “collective stories”(p.37) permit a complementary view of data that is formed by not one opinion but that of many.

Participant observation

The final research method I employed was participant observation, a method where “the researcher is playing an established participant role in the scene studied” (Atkinson & Hammersley, 1998, p.2). This data collection description is in line with the parts that I played in my research project, being both instructor and investigator. Liebow (1993) describes participant observation when researchers embed themselves into the situation they are studying by sharing as much as possible in the lives of the research participants, simultaneously trying to “see the world from their perspective” (p. 7). Liebow conducted a long-term research project documenting the lives of homeless women at a Washington D.C. shelter. He recounts in his book, *Tell them who I am: the lives of homeless women*, that participant observation as a research method can only be done successfully when the researcher has been accepted by the group being studied. Although there are pitfalls to conducting research using this method, such as the researcher getting too close to the participants and not being able to analyze the data objectively (Atkinson & Hammersley, 1998), participant observation allows the researcher an opportunity to forge deeper

connections with the participants that will lead to a trusting relationship between the two. That trust will permit for richer data that are more profound and consequently purer in a sense (Liebow, 1993). During the focus group session for my research project, one of the participants declared that I was one of them, a comment concurred by the other members of the group. I felt that the responses I received to my questions during this research project were more heartfelt as the trusting links, between participants and researcher, became easier to create and stronger as our time together progressed.

Visual analysis

In recent years the visual analysis of artifacts as an examination method has become increasingly more ubiquitous in research (Knoblauch et al., 2008). Adler & Clark (2011) argue that still images and videos should be treated as data as it offers a different viewpoint from that of traditional information collection, such as interviews. Participants in my research project created digital narratives with still images and video they had recorded. These artifacts were analyzed using the same codes in place for analyzing the transcripts.

Chapter 4 -Theoretical Framework

The theoretical framework guiding this project originates in positioning literacy as a social practice. Literacy has been considered as a set of skills an individual learns, as a child or as an adult, which is consequently used in a person's life on a daily basis. This oversimplifies literacy as merely an ability to understand the written word and disregards the notion of other literacies (Papin, 2005). When literacy is situated as a social practice, a different viewpoint is offered through this lens. Freire (1999) suggested that when individuals were learning to read and write literacy could no longer be regarded as a neutral activity but rather one charged with political and social implications. Historically, literacy has been used as a way for dominant groups to stay in power by simply not allowing individuals access to an education. This was accomplished by making literacy instruction accessible to certain social groups and, in many cases, only the males within those groups were permitted to be educated. In other instances people have been allowed access to basic education, with the intent of training them to become acquiescent workers, while stripping them of any sense of control over their own lives (Searle, n.d.).

Harste (2003) argues that the significance of literacy is dependent on the meaning a cultural group places on the word and it should not be summarized as a skill set a person either has or does not have. Harste points out the importance of acknowledging multiple literacies and their potential for allowing students to use and critically access information which in turn will allow them to think about issues in a meaningful manner resulting in "thoughtful new social action" (p.11).

The notion of multiliteracies was advanced in 1996 by the New London Group who suggested the word literacy needed to expand from the narrow description centering on “traditional language-based approaches” (p.1) to a definition that would account for not only the different ways people communicate but also the diverse socio-cultural perspectives embedded within those communications (New London Group, 1996). Many literacy practices are now recognized because the definition of the word has evolved to include more than just written words in traditional books. Consequently the exclusivity of literacy has evaporated as even those who cannot read may still participate in meaningful discourse by being able to code and decode languages such as street art, tagging, photography, blogging, video stories and the list goes on (DaSilva Iddings et al., 2011; MacGillivray & Curwen, 2007)

The theme of empowerment through the gain of knowledge was a constant within this project and its diverse facets such as using different types of technology to create a variety of texts. This approach aligns well within a framework that positions literacy as social practice, which sees a wholehearted acceptance of literacy’s power to transform an individual’s life for the better (Freire, 1999). Participants were asked to see themselves as creators of texts instead of merely being passive consumers. By putting their work online for others to read and comment on they were also changing their history with literacy from a one-way street of communication to something more dynamic. As such, a shift in the participants’ relationships with their educational selves needed to occur so that an acceptance of one’s power to transform and flourish could be acknowledged. The students needed to embrace a “language of possibility”(Giroux, 2001, p.81) without any hesitation, which would further propel them on routes to educational success. Literacy as social

practice is a great proponent of that concept.

This theoretical framework also lends itself as an archetype for innovation and experimentation. The boundaries of what it means to be literate have increased and within these newly formed contexts, multimodality, described as creators of texts using a variety of different ways to communicate, plays an important role in that expansion (Rosewell & Burke, 2009). Participants in my research project were asked to express themselves in a variety of ways such as creating computer-mediated texts, recording video, taking photos, and deciding what type of music worked best with their edited pieces. Those skills were viewed through a lens firmly entrenched in literateness instead of learning basic day-to-day proficiencies not always associated with literacy (Wilson, 2009). Through this process the students own narrow definitions of what it means to be literate expanded to include more than just written text and numeracy.

Finally, literacy as social practice takes into account the socio-cultural aspects of adult learning, a piece that is many times discounted (Urbach, 2012). Adult students carry into literacy programs suitcases full of rich informal learning experiences and educational histories affected by cultural norms. Those factors are important determinants in an adult learner's life. Urbach (2012) recognizes the power one's socio-cultural background has on literacy and to dismiss such influence is a grave mistake. She states "literacy learning begins before students enter school. It begins within the family and community in which one belongs" (p.393).

Chapter 5 - Research Project Design

This project's primary focus was to investigate if adults with low literacy skills would feel empowered after learning how to create content for a blog using digital technology. This project was multifaceted and sought to further the understanding of how adult learning is affected by digital technology, and so therefore, this resulted in peripheral questions related to the main research question such as: *Would an empowered learner feel encouraged to further his or her education?* and *Would the use of digital technology enhance the literacy skills and digital literacy skills of an adult learner with basic literacy skills?*

The participants for this project were recruited from a social service agency located in Durham Region. This particular agency, which has a variety of chapters across the nation, is a non-profit organization that services such as basic education for adult, harm reduction programs and parenting skills.

The Durham Region chapter runs a basic literacy skills program to help adults upgrade their education. Some of the program's clients are working toward their high school diplomas while others are progressing with the intention of entering academic upgrading programs at colleges. The program accepts participants on a continuous basis and the instruction is individualized. A client upon entry into the program will be assessed to see at which literacy level he or she is designated, and then a customized educational plan will be established with the help of an instructor. Some clients stay in the program for months while others only weeks. During that time the instructors, who are working one-on-one with the students, learn much about their aptitudes, their learning styles and long-term goals. Based on this information, it was only logical that the instructors from the basic

literacy program at the social service agency recruit the seven participants for this project. The instructors approached students who were between a level two and three on the literacy indicator and who had little or no experience using digital technology but showed openness to learning more about it. The instructors explained to the participants what they would be learning over the course of the six-day workshop and the technology they would be using as well. I taught the workshop that ran for three days a week over a two-week period. I have taught blogging, editing, recording video and producing digital narratives for a number of years as an instructor at a local college.

Once the students were identified and had agreed to participate, dates and times were set up for the initial individual interviews. After completing the workshop the participants would be interviewed once more and also take part in a focus group session. With the exception of one person, the participants' experience with digital technology, such as tablets and iPods, was either non-existent or minimal. The interviews were recorded with an iPod, using an app called Audio Memo. I also had an iPad during the interviews and having both pieces of digital technology with me became an opportunity to show the participants the equipment they would be working with. The interviews were conducted in a semi-structured manner and the main topics were the participants' educational histories, their thoughts on digital technology and their short and long-term educational goals. In the second interviews the participants were asked the same questions as above except for their educational backgrounds and during the focus groups they were asked for their thoughts on what they had learned in the workshop. See Appendix A for the questions.

On the first day of the workshop the participants were given an overview of what

they would be learning. See Appendix B for a day-by-day schedule of the workshop.

The participants were told they would be learning how to create digital content for a blog using digital technology. Students would also learn how to operate an iPad, to open and close applications; to write content for a blog using a blogging application on the iPad and how to publish their written pieces (posts) to a blog created specifically for the workshop. Students would also learn how to take images and video with iPads, and learn how to edit the images and video together to create digital narratives with text and music. The students created and posted content to a blog I created through Wordpress, a free blogging tool based on a content management system platform (Wordpress, n.d). The blog can be found at the following URL: <http://jhsreflections.wordpress.com>. I registered the blog with the URL jhsreflections and after discussing with the instructors in the JHS program what name would mirror best the intentions of the blog, it was named *Reflections* (Figure 1). The method of having students post content to one blog, instead of having them each create their own, was chosen as a way to foster a sense of community and collaboration between the participants.

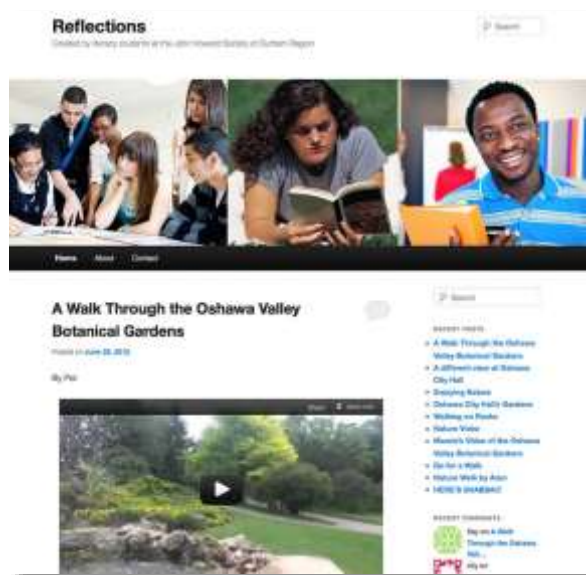


Figure 1 - Reflections Blog

New literacies, such as blogging, have been identified as an online abode where collaborative efforts take place in “participatory practice” (Merchant, 2009, p.111) allowing the contributors to construct knowledge collectively. Wenger’s (1998) Communities of Practice (CoP) theory suggests that learning happens within a group setting through the exchange of ideas between members. This theory fits in well with the type of blogging activity the participants of my research project were involved in because it was a small group of people who were building their knowledge collectively by sharing in a communal area (the blog) the work they created individually.

The digital technology

The digital technology used for this research project included iPads, iPods and MacBook Pros⁴, all devices manufactured by Apple Inc., a company known for manufacturing popular consumer electronics (Markoff, 2007). The software used in this research project included iMovie, iPhoto and GarageBand, all part of Apple’s creative suite known as iLife. The integration of Apple hardware and software was done after careful consideration. I had used android-based tablets and personal computers that were Windows-based. When I compared the Apple devices to the others platforms I had experienced, I felt the Apple devices were better suited for adult learners due to its intuitiveness and the seamless way the devices in the Apple line work together. Shareski (2011) noted that educators are increasingly choosing the iPad for classroom learning over any other tablet due to its design and ease of use, which provide “a more intimate

⁴ I would like to acknowledge the support of Dr. François Desjardins, at the Faculty of Education at UOIT, through whom I was able to borrow sufficient hardware for all the participants in my study.

experience with content and ideas” (p.1).

Initially the workshop I created was designed with having the participants use only iPads to create all the content required for the blog however I was only able to secure the use of first generation iPads. The first generation iPads do not have a camera and hence do not have the ability to shoot stills or video. The iMovie app, an editing software program, can not be installed on first generation iPads as well. Along with writing with an iPad I wanted to give the participants the ability to produce literacy texts not related to the written word to expand their knowledge of what literacy is and also give them some experience with new digital skills such as editing. I found a solution to this dilemma by securing fourth generation iPods that could be used to capture still images and video. I then made the decision to have the participants edit the visuals they would take on two MacBook Pro laptops using iMovie.

The use of the iPad, iPod and MacBook Pro by the research project participants turned out to be serendipitous in the sense that they were able to gain experience with different types of digital devices enabling them to build their skills and confidence in that area.

The software and applications

The decision to include the particular apps and software that were chosen for use in this project was based on its ease of use and transferability of skills from one application to another. I had added some educational apps, such as vocabulary games, on the iPad for the participants to experiment with before being introduced to the Wordpress application (app) however the students seemed more interested in writing and so those apps were not

used as much. Consequently, I will not discuss their use in this research project and focus on the main app that was used: Wordpress.

The participants used a Wordpress app on the iPad to create the posts⁵ for the blog. This app was suitable for the task as it allowed multiple users to work on the same blog at the same time and it did not require connectivity to the Internet until the moment of publishing the post online. The wireless Internet connection in that particular area was not always consistent due to having several iPads trying to connect at the same time therefore having an app that allowed the participants to create their texts without it needing to be connected worked well.

The participants also used iMovie, iPhoto and Garageband on a MacBook Pro laptop when editing their video and still images together to create narratives with text and music. These three different applications are part of a creative suite called iLife, which was developed by Apple. Touted as “digital life applications”, this software package is bundled together to give consumers the ability to edit video, organize photos, create basic websites, and produce music by using applications that work together seamlessly (Apple.com, 2010).

The participants

There were seven participants who took part in the workshop however one participant did not attend all of the workshop days or participate in the focus group and so for that reason I have decided not to include her in the data analysis. The participants read and signed a Letter of Information and Consent (Appendix C) before the interviews took place. Following are short profiles on the six participants based on the information

⁵ Posts are the entries that appear in blogs. Posts will appear on a blog's main page with the most recent published entry at the top (Wordpress.org. n.d.)

collected in the first interview. All the names are pseudonyms and their past employment have been generalized to fields rather than specific professions.

Marcie

Marcie is a 55-year-old woman who completed high school in another country. She began working in an office once she finished high school to help her mother and siblings although her dream was to work in the field of health. Years later, after she immigrated to Canada, she returned to school and subsequently became a healthcare professional. After many years of being employed in that field Marcie suffered an injury and was unable to work. She decided to return to school to train for a career in counseling but found that her numeracy and computer skills were not sufficient to enroll at a college or university program. She described herself as optimistic, hardworking and eager to learn but in our conversation she also talked about losing her confidence after her injury and that attending the basic education program at the social service agency was helping her gain back her self-esteem. She described herself as being scared of technology but determined to become more comfortable with it as she knew she would need to use computers for school work once she enrolled at a college or university program.

Stan

Stan is a 48-year old man who left school with Grade 8 education and began working in the print industry. He was laid off after working for the same company for 31 years. He entered the basic education program at the agency with the intention of completing high school and then applying to a Skills Trade program at the local college. His goal is to run

his own company once he has finished the program. He described himself as being a quiet person and keeping to himself but liked to joke around with the other students and instructors at the basic education program. Stan said he knew enough about computers to find something on the Internet using Google but he did not spend much time using them. He had been exposed to iPods as his children had the devices but had never used them. He did say however that he was open to trying the digital technology presented to him during the workshop although he cautioned me that he might get frustrated.

Shabba

Shabba is a 26-year-old woman who received a high school diploma she described as being “applied”. She is attending the basic education program at the agency in order to complete courses in the academic stream with the goal of entering a university program in health services. Shabba suffered a traumatic brain injury when in high school and, as a result, she completed the credits required for her diploma on a modified schedule. She describes herself a happy person who enjoys learning. She has an iPhone (an Apple cellphone) and is quite comfortable using digital technology such as iPods and iPads.

Aron

Aron is a 55-year old man who completed high school in his birth country and was a trained electrician. He immigrated to Canada and worked for a printing company for almost twenty years but was laid off and unable to find work after that. He was at the agency’s basic education program upgrading his reading and writing skills with the goal of entering a two-year college program in the Skilled Trades field. Aron described himself as

a very open person, artistic, political and a person who loves to be outdoors. He has some experience using programs, such as Excel and Wordperfect but no experience using an iPad or iPod however he expressed an interest in learning how to use these tools.

Richard

Richard is a 50-year-old man who completed Grade 8 in his birth country and then learned a trade in the clothing industry. He immigrated to Canada as an adult and worked in skilled trades until an injury left him unable to continue working in that field. He is attending the program at the social service agency to complete Grade 10. He is unsure if we will continue his studies to complete Grade 12 but he expressed a desire to help others and mentor young adults. Richard described himself as just being like anyone else, trying to do the right thing. His experience with digital technology was limited to using his phone to text and he has sent e-mail using a computer. He explained that he is neutral about digital technology but that he sees knowing it as necessary to function in contemporary society.

Kerry

Kerry is a 41-year-old woman who completed Grade 12 but has difficulties reading, writing and with math. She worked as a cashier for many years but was laid off six years ago and has been unable to find work since. Kerry has been attending the basic education program at the social service agency for 18 months with the intention of upgrading her education and also so she can assist her children with their homework. She has a computer in the home but says she gets frustrated using it. She uses her phone to text but has not

used an iPad or iPod on a regular basis. Kerry described herself as being quiet and keeping to herself but being outgoing at times. She admitted to putting herself down a lot and not believing in her abilities to learn and consequently she is thinking she may never be ready to attend a college or university program.

Chapter Six – Data Analysis and Findings

Introduction

Data was collected by interviewing the participants, individually and in a focus group setting, through observation of the participants and by analyzing artifacts produced during the workshop. The data included: text-based blog posts, blog posts that were images and videos; responses and replies to blog posts; pre and post project interview transcripts, focus group field notes and class field notes. Inspired by the interactive model of qualitative data analysis by Miles and Huberman (1994) who characterize data analyzing as “concurrent flows of activity” (p.10) rather than phases a researcher reaches as he or she completes a part of their analysis, the diagram (Figure 2) below shows my own method of collecting and analyzing data for this research project.

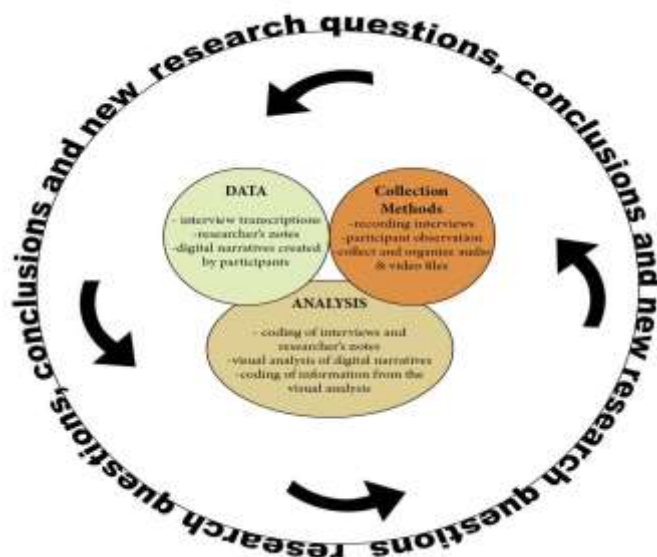


Figure 2

The Miles and Huberman model has been critiqued for showing a “very predictable pattern” (p. 10) to data collection and analysis (Adler and Clark, 2011). My illustration has the various steps of data collection and analysis shown as spheres within a larger, all encompassing orb that represents the initial research question, the conclusion and new questions that have resulted as the different steps from the data collection and analysis were completed. I feel this diagram represents the process I went through, where the driving force of the project was the research question from start to end. The research progression in my case was also non-linear as a step that I thought may have been completed was re-visited again for further clarification, additions and or changes. I would describe it as not predictable and more organic and for those reasons I believe the globular nature of qualitative research is described best in a diagram with circles and curved arrows showing a process that is circular and does not have an apparent or predictable beginning or end. I also feel that it is important to acknowledge that a conclusion or conclusions

reached after data analysis is completed will result in new questions and for that reason the circle of words enveloping the spheres of steps does not have a clear start or end point.

The transcripts from the interviews and the focus group, my field notes and the digital narratives were all coded using a grounded theory approach, a method which develops ideas inductively from the existent data (Alder & Clark, 2011) and according to Jones et. al (2005) can be described as “data collection, coding and analysis occurring immediately, concurrently, and throughout” (p. 6) . This method fits in well with the data analysis I did, as illustrated in Figure 2, as it was non-linear and unpredictable. In the open coding process of all the data I identified larger issues pertaining to my research question(s) and I categorized them into eight themes, which I colour-coded. I returned to the transcripts and notes I had and colour-coded the statements that fit into the themes using the same colour I had used for the topic (see example in Appendix D). I then used selective coding to create the emergent storyline (Borgatti, 2005). Selective coding entails formulating a main concept, which will become the core category, and then connecting sub-categories to that main concept (LaRossa, 2005). The data were analyzed using a core topic as a starting point and then using the sub-categories, I had identified initially as general ideas that emerged from the data, as conduits to the core theme.

Based on the themes I identified in the transcriptions and notes, I felt that the predominant narrative in this research project revolved around transformation of self in a social context. Harste (2003) asks “what kind of lives do we want to live and what kind of people do we want to be?” (p.11). These are very important questions for individuals with low literacy skills to answer in the context of emancipatory literacy. As an individual begins to understand that he or she actually have the right to answer these questions, the

first step toward empowerment has begun (Freire, 1997). The process leads to transformative learning, a theory that values the experiences the learner has had in the past and also encourages reflection and free thinking that leads to taking one's knowledge to a different level (Mezirow, 1997). Although Transformative learning seems to be an individual pursuit it actually does not take place in a vacuum but rather through socially constructed knowledge within groups where problem solving and collaboration occurs (Mezirow, 1997; Cranton & King, 2003).

Along with the main theme described above, there were eight sub-categories that I had identified initially but I have reduced to only the following topics in the data analysis: empowerment, technology and mentoring/agents of change. These topics have direct connections to the research question: will adult learners with literacy challenges feel empowered as a result of creating content for a blog through the use of digital technology. The data (interviews, field notes and digital narratives) were sorted within the three filtered sub-categories, empowerment, technology, mentoring. The first sub-category, empowerment, was further divided into sections demonstrating the different skills the participants learned during the workshop: blogging, taking photos and video and editing. The photographs and the videos were also analyzed for signs of empowerment related to the theme of this project.

Empowerment

Blogging

Only one person knew what blogging was when I first introduced the subject during

the first interview sessions with participants. Once I explained the personal tone blog posts usually have and the choices the participants could make in terms of having what they decided to write private or making it public, they were eager to begin. Participants were allowed to write on any subject that they wished and it was explained that the published posts would appear online on the *Reflections* blog. It was also explained that if someone reading the post wished to comment, that they would have that opportunity at the end of the post. All comments were moderated and would only be approved after being read by one of the basic education program instructors or myself. Participants were encouraged to respond to any of the comments left on their posts.

The first three days of the workshop were dedicated to using the iPads to write. Once the participants had written a post and indicated that it was finalized, one of the instructors or interns from the literacy program would go over the post with the participant to make corrections and suggestions for changes if required. Once the post had been reviewed it was published if the participant had decided he or she would be making it public. The participants were shown how to add images to their posts and some of them decided to do that choosing from a group of royalty-free images that had been previously uploaded to the iPads for that purpose.

The table below records the number of posts written by the participants, the number of posts that were published online and the subject matter of the posts published online.

Table 1: Posts Written by Participants

	Number of written	Posts published online	Subject matter of the posts published online
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Participant	posts		
Marcie	2	1	-a visit to Niagara Falls
Stan	2	1	-the life of an unemployed adult
Kerry	2	1	-being a single mother
Shabba	3	2	-both posts are about her dad
Aron	3	3	-the aging population in Canada -cell phone use -life in Sri Lanka
Richard	2	0	

The findings from this research project show that although blogging was a new concept to the participants they enjoyed doing it and felt empowered throughout the process. Aron commented how blogging made him realize that he could write his thoughts with confidence. Marcie said that the fear of not understanding what the word blog meant had disappeared and had opened up her mind to new learning.

What a new world I've been exposed to. It's been a wonderful experience. The knowledge, the confidence now... it's not a foreign word anymore because to be honest, blogging, Twitter, what's that all about it? You know, you are watching TV, you are watching the news and it is like you hear the word blog and you think, "what is this new thing about"? So when you mentioned blogging I thought, "Should I get involved? What if I look silly?" It has been a great experience.

Stan and Shabba noted the therapeutic benefits they experienced from blogging about their personal issues. Shabba said that blogging has allowed her to reflect and that it had been helpful when writing about the personal problems she was undergoing. Stan

related the following story on how the post he wrote discussing his feelings on being unemployed affected not only him but also his family.

Stan: *I'm not in to all that stuff but I wrote something down, I got some response so it was nice, it was nice. I shared it with my family. My family didn't think I had it in me.*

Anna: *What were their reactions?*

Stan: *My wife cried. (Anna: Why did she cry?) She said I don't throw my emotions out there. I keep it all to myself. She didn't know I felt like that. I've been telling her for years but I come across hard-nosed but she sees me write it down, so she went "uh-oh". She thought it was touching. My youngest never saw it but he could care less. My older boy, he thought it was good. And so he told me, "dad, that was really good". I feel I accomplished things I didn't think I would or would ever be in me. That's what I found.*

Anna: *So you didn't think you could do this?*

Stan: *Oh, I thought I could do this but I didn't think I could do this well. Like I say, I feel I accomplished things. When you show somebody else (your post) you feel that you accomplished it and nobody else made you and nobody else bent your arm. You just done it and you got positive feedback and I thought it was cool.*

Richard did not enjoy, as much as the other participants, the process of blogging, which he felt was similar to gossiping, however he was happy to learn a new skill and felt that was empowering. Kerry also said she liked learning how to blog because she mastered something new and she also felt she had a better understanding of what her children were doing when they were online as a result.

Observing the participants in the setting they were accustomed to being in, I was in the spot that Cohen (2000) describes as walking down "a path to understanding" (p.316) and since I was the person facilitating the workshops there was also an advantage to

assuming this position which “acted as a bridge creating opportunities for further interactions” (p.322). I not only observed the participants but was also part of the workshop allowing for a unique view into the participants’ learning. Cohen states in his paper, *Problems in the field: participant observation and the assumption of neutrality*, that he and his wife were welcomed as anthropologists into the Mexican community they were observing for their research but found their roles being redefined as they began teaching English to some of the members within the society they were researching. This approach can cause problems, as Cohen encountered in his research (2000), but this method also allows researchers the use of a different, albeit personal, lens for analyzing the data they are gathering (Claster & Schwartz, 1972). In my experience, I did forget I was the researcher and focused entirely on my role as the workshop facilitator at times. This could be seen as a negative however I think the observations I recorded as a result of immersing myself in the role of facilitator and integrating myself as part of the group are richer as a result. I was able to collect data on my own interactions with the participants and also the exchanges of communication between them as they were learning new skills. Being at the same table where they were writing and editing allowed me to observe the small nuances that an observer from afar may not catch. As well, as our time together progressed and we all became more comfortable as a group we spoke in more familiar tones, we laughed together and also shared some sadness along the way. I am assuming that role came very natural to me as I teach media-related courses at a local college.

One of the more interesting revelations I made during the first three days of the workshop, when the blogging was taking place, was how the participants handled the iPad. On the first day of the workshop the iPads were left on the desk until I asked that they pick

them up to demonstrate how to turn them on, how to bring up the keyboard, how to prop them up and so on. Except for Shabba, the participants all showed a bit of hesitation picking the devices up. That uncertainty wore away during the rest of the workshop however the next morning I saw a real difference in how the participants handled the devices. I placed the iPads when I arrived on the desk and as participants arrived they immediately picked them up, turned them on and began using them without trepidation, as if they had been using these devices for a long time. This behavior was in stark contrast from the day before however it was only during the second round of interviews in which comments that Marcie and Richard made separately, that I manufactured meaning from that particular observation. Marcie and Richard remarked that had they not been shown how to turn the iPads and iPods on they would have never used one. It was a simple thing, turning on a device, however knowing where that point of entry was made all the difference in how the participants felt about using the iPads and iPods.

Taking photos and video

On Day 4 of the workshop the students were introduced to the iPods, which would be used to take images and shoot video. I showed them over the course of 20 minutes how to take images and video with the iPod and discussed the implications of recording video or taking images of a person they do not know or recording and taking images on private property. As well, I showed two examples of digital narratives so the participants would see the end product of a similar project such as the one they would be creating. It was explained that the projects would be published online using the Reflections blog if the participants wished to have their posts online.

Once familiar with the particular settings on the iPod for recording and taking still images, the participants, my research supervisor, three assistants, who were available to help participants use the iPods, and myself went to a local park. The participants were asked to take images and to record video of anything they wished. The field trip lasted about 90 minutes. During that time the participants discussed and made choices about what would be part of their digital narratives. Shabba came upon an idea, after having a discussion with an assistant, that she would create a digital narrative consisting of shadows and peculiar tree and flower formations. She then directed some of the people around her, including myself, to stand in certain ways so she would be able to take images of our shadows (see Figure 3).



Figure 3 - Image taken by Shabba

During the field trip, two of the participants, Stan and Kerry, branched off and worked on their own however the other four stayed together providing each other with encouragement, trouble-shooting support and creative ideas. It was revealed in the focus group and second interviews that many of the participants enjoyed this part of the

workshop most as they were introduced to something they had never experienced before. Richard commented how much he enjoyed taking images and video with the iPod and Marcie stated that learning that process had made her think about job opportunities in the field of video production. Shabba had opted to not take any video during the excursion focusing solely on taking photographs. She described the process as “very cool” and said that it had also made her think about taking a program in the field of photography. A visual analysis of some of the images and video taken that day indicates an assuredness with the technology and an understanding of what it could do. Richard took many close-ups of flowers (see Figure 4) and Shabba experimented with her surroundings to create a natural collage using a reflection and a face (see Figure 5).



Figure 4 - Image taken by Richard



Figure 5 - Image taken by Shabba

Although equipped with minimal knowledge on the art of photography and video production the participants demonstrated an abandon of the uncertainty that had permeated in the air on the first day of the workshop. Interestingly, this new skill they had just acquired did not seem to be daunting in the least. The findings seem to indicate that a certain trust of the technology that was established with the iPads transferred to this new situation. It also seems the new-found comfort may have been as a result of working within a group where cooperative learning was creating a sense of security amongst the participants and permitting them to take chances artistically. Kilgore (1999) suggests,

In order to understand collective learning and development, we must consider the totality of the system. Individual development is partially determined by a group's development, a group's development is partially determined by any individual member's development, and all development is partially determined by the group's collective actions in relation to other groups' collective actions within a sociocultural context (p. 197).

Kilgore's collective learning theory states that the diverse sociocultural backgrounds

of the members within a group it what allows it to have “infinite developmental possibilities” (p.198) as the interactions between the members allow for collective knowledge to propagate within those. Freire (1999) suggested that collective knowledge was a route toward community emancipation, which consequently leads to the empowerment of an individual.

Editing

The participants were given two days to edit their footage and still images into digital narratives. Learning how to edit with iMovie became an individual activity as I showed each participant separately the functions of iMovie in a 15-minute overview. iMovie is an editing software, found on Mac computers, that is consumer oriented yet has many high-end features found in professional editing programs (Curtis, 2006). Its fluid and intuitive interface makes it easy to learn the basics in 15 minutes from my personal experience as I have been teaching students how to use iMovie for several years now. Music, text and transitions are all integrated within iMovie permitting the novice editor to create videos with music and text efficiently. Once the participants indicated that the digital narrative was complete I uploaded the file to a YouTube channel I use in my own teaching practice. From there the YouTube embed code from the video was copied and then pasted into a post on the *Reflections* blog.

Aron, Marcie and Richard created two digital narratives each while the other participants created one digital narrative each. Some of the observations made while the participants were editing included the great care each took when choosing the music, the quality of the text being added to the videos and the way the clips and photos were being

placed on the timeline.⁶

Marcie described the process of editing as an artistic endeavour because much thought was required in the process. She said,

And to see how we compile and put things together, because I am thinking that we took photographs, you do all this...I was thinking how do we get this to be a video now? I'm telling everybody, I'm going to do video tomorrow. I don't know what it is going to turn out to be. But, it's like wow, what an art.

Richard, who had enjoyed this part of the workshop more when compared to the blogging portion, also commented that the photography and video taking had made him feel like he developed something because he had the proof in the form of a finished narrative. Aron also enjoyed the digital narrative-making project and had actually taken the project further by recording his voice into one of the digital narratives he created.

I had allocated two days within the workshop for the editing of the digital narratives as I only had two laptops and the students would only be able to edit one project at a time. I had anticipated that each student would need two to three hours to edit their videos once they received instruction however Shabba, Marcie and Richard finished editing their projects much faster. Shabba edited her piece in about 45 minutes, Richard edited his video in about an hour and Marcie took around 90 minutes. When Marcie and Richard were finished they asked if they could take the iPods out again, on their own, to a different location and get some more photographs and footage. They went out for about an hour and visited an outside area where there are many sculptures and gardens. The following day they each edited two new pieces with the footage they had taken on their own. Those

⁶ A timeline in editing is an area of the editing program where the video clips or photos in a media project will appear in the intended sequence the editor wishes the final product to appear in (apple.com, 2012).

pieces were subsequently uploaded to YouTube and then added to the *Reflections* blog.

One limitation of the digital narrative projects was that the participants all took video in the same location, a public park, and were limited to what they were finding in that area as content for their projects. The second videos produced by Marcie and Richard also occurred in a park-like area. This did not allow for much variety in terms of the participants' digital narratives as all of them, except for Shabba, created projects with the predominant theme of nature.

Technology

The Canadian Council on Learning stated in 2010,

Using technology to learn can substantially increase access to knowledge and information and may improve access to education, formal and informal learning, and employment opportunities. (p.20)

The connection between the enhancement of learning through the use of digital technology has been documented in diverse studies with students of all ages (Chandra & Mills, 2011; Johnson, 2010; Gyabak & Solis, 2011; Greigg & Hughes, 2012). As I began to formulate the research question for this project and to conduct a literature review on the subject of adult education and empowerment, it became apparent to me that digital technology would play a big role. For reasons already cited in the introduction to this research project, success in the workplace not only means knowing how to read and write but increasingly it signifies understanding and operating digital technology as Canada moves from a resource-based economy to one that is knowledge-based (Eaton, 2012).

As aforementioned, the participants used three different Apple products although the project was devised initially with only the iPads in mind. The iPad 2 and newer

versions would have allowed the participants to do all the activities I had planned within the workshop, from blogging, to shooting video and still images to editing however I was only able to secure the use of the iPad 1 and therefore required some improvising to have the workshop run the way I had envisioned it. As a result, fourth generation iPods and MacBook Pro laptops were also introduced to the participants. I carefully considered the order in which the technology would be introduced to the participants as there were two factors to consider: the workshop was only running for six days and the participants had limited or no previous exposure to the iPad, iPod and MacBook Pro. The digital technology component would need to be scaffolded, however the scaffolding would need to take place at a very rapid pace due to the short time the workshop would be running. Therefore it was important to make sure the knowledge gained from one piece of equipment to the next would be transferable in a logical manner. As well, I used the Technological Pedagogical Content Knowledge (TPACK) framework as a guide when planning this portion of the workshop. This framework, which builds on the work of Lee Shulman's concept of Pedagogical Content Knowledge (Koehler, 2011), asserts that "true technology integration is understanding and negotiating the relationships" between content, pedagogy and technology (Koehler, 2011). Following this framework was helpful as it allowed me to validate my choices regarding the order of introduction. I made the decision based on three factors: my own experience with the three pieces of equipment (technology); my experience teaching adult students at the college level some of the same skills I would be teaching the participants in my research project (pedagogy); and the particular skills I would be teaching in the six-day workshop (content).

Grounded on my previous experience teaching adult students, I knew that

introducing a new skill too quickly can result in frustration and/or apathy as the person may struggle to learn it and decide to give up rather than pursue it. As some of the participants in this research project had confessed in our first interviews getting frustrated with learning new technology, it was paramount not to alienate them by presenting activities that would not build upon each other in a logical sequence. As well, since the research question guiding this project was to learn more about the role blogging and digital technology play in empowering the adult learner, it was very important to introduce the skills and the technology being used to learn these skills in what (2012) describes as “confidence-building sequencing” (p.82), which means presenting new skills slowly while linking to a student’s prior knowledge. This allows the student to not only feel more comfortable with what he or she is learning but also develops their confidence within the new learning situation.

The three pieces of technology were introduced in the following manner: first the iPad, which was used for learning the text-based aspects of creating content for a blog, the iPod was second and used to take still images and record video; the MacBook Pros were used to edit the footage into digital narratives, upload the finished pieces to YouTube and then embed those videos into the blog being used by all the participants.

The iPad

After learning how to turn the iPad on, the participants practiced using their fingers on the surface of the screen to open an app, move a cursor and scroll down a page. To practice these skills I asked the participants to play some of the educational games I had loaded on to the iPads however I found that they did not find these apps very engaging and

so I moved them on to the next task of learning how to create a post using the Wordpress app. Before actually writing the post, I gave a quick presentation on the concept of blogging, showed an example of a blog and I revealed *Reflections*, the blog the participants would be contributing to. The students began writing practice posts within the Wordpress app and learning how to save what they had written as a draft. An issue I observed was that some participants were having difficulties directing the cursor within the touch pad screen while writing their pieces. After speaking to the participants about this issue I decided to purchase styluses, which would allow them to have greater control over the movement of the cursor on the screen. The styluses were introduced the following day and many of the participants expressed how much easier it was to type and to control the placement of the cursor using it.

Several of the participants commented that they preferred writing their thoughts using the iPad rather than using the tradition paper and pencil route or using one of the desktop computers available at the agency. Richard said that he liked using the iPad to type as he did not feel under pressure to use all his fingers when typing, something he does not usually do, and therefore using the iPad allows him to focus exclusively on writing. Kerry stated that using the iPad allowed the ideas to flow more easily and allowed her writing to have fewer mistakes.

When people want stories from me, the paper will be there but it will be empty for days because in my mind I want to say it but don't know how to get it on the paper, how to start it. But with the iPad, I just kept going and I was shocked with how much I got done. I don't know in two hours, or one hour. When I wrote that, a lot came off. I wouldn't have written it on paper. But my fingers kept going. I was concentrating on that and I blocked everything out. I made less mistakes because of the auto-correction.

The auto-correct, a function on the iPad, fixes spelling mistakes by replacing any incorrectly spelt words with the correct spelling. Aron also commented on how he felt that the iPad had made his writing better and he contrasted working with it versus the desktops available in the program:

When I use computers sometimes they handicap me and I had to go in there and run spelling check and I had to find the words and put them in and that takes a long time. But the blogging with the iPad give me the thing that I need and I don't have to run spelling check. You can drag the thing and put it in right away so it made my writing on the iPad faster and I did it a lot faster on that than on the computer normally.

The iPods

The iPod was the next device to be introduced. I discussed best practices for photography and video recording using the iPad along with considerations to take into account such as taking photos on private property. The participants were able to transfer many of the skills they had learned operating the iPad to this new situation such as turning on the device, using their fingers or the stylus to open apps and close them and using the swiping motion on the screen. As a result, they were able to focus solely on learning how to take images and video with the iPod. Some of the participants commented that using the iPod to take pictures and video had been very easy resulting in just being able to concentrate on the creative aspects of doing those activities without being worried about working the equipment.

MacBook Pros

The MacBook Pro laptops were introduced in the last two days of the workshop.

The laptops were used solely for the purpose of editing and they were the last piece of technology to be introduced. The participants had some familiarity using desktops with keyboards at the basic education program, however I had heard some of the students, when talking to each other, express their dislike of using them because they felt forced to type with all of their fingers and that slowed them down considerably as they focused on keyboarding skills. I explained in my individual training sessions to each of the students that they would be using the mouse attached to the laptop to click areas in the program to get things done and that typing would not be required for editing.

The participants quickly transferred the experiences they'd had with the desktop computers and the new skills they had acquired through the use of the iPad and iPod to operating the MacBook Pro. A level of comfort and confidence seem to be in place when they began working with this new piece of technology and the editing was something that all of the students mastered quickly. Although there were areas where they got stuck and required some guidance, most of the questions were about something new they would like to do, such as adding music or a new transition, rather than having to do with a basic function I had already described.

Difficulties with the technology

The participants were asked about what they did not like about the iPads, iPods and MacBook Pros. Although all expressed great satisfaction using these devices the two common complaints that surfaced were:

-using a finger or even the stylus on the iPad did not always work as the cursor would not move to the place the participant had wanted it to move;

-switching the iPod from still image to video mode or vice-versa was tricky due to the small slider in place for that function.

There were no complaints regarding the use of the laptops, the apps or the software. There were some difficulties connecting all of the iPads to the wireless Internet connection and so the publishing of blog posts happened using the laptop, which was connected to the Internet via an Ethernet, or we would wait for the iPad to connect through the wireless system.

Summary to the technology section

The findings show that the tiered introduction of the technology boosted the participants' confidence and contributed to their sense of having governance over the devices they were working with. As some of the participants had expressed a fear or lack of confidence when engaging with technology before the workshop started, it was rewarding to observe the ease they showed when they were creating content with the iPad, iPod and MacBook Pro. I feel this method demonstrated the efficacy of creating an axis of tiered knowledge when working with technology. This can be explained as one device enhancing the participants' keenness and motivating further learning that is unhindered by feelings of fear or inadequacy, and then those feelings being transferred to the new device in an even more heightened state. I believe this system works best when the technology will integrate as effortlessly as Apple products do otherwise the transference of knowledge from one device to the other will either not occur or at the very least, be more difficult.

Aron felt that operating the iPod was easy after using the iPad and Marcie stated that, although the technology was challenging for her because of the fear of the unknown, guiding them through each device “took the fear out of it”. Richard commented,

I find it challenging but in a good way because you start to learn other ways of doing things. It gives you a sense of, OK, I can do it many ways. I find it very good by you showing us what to do, you are moving us into light years ahead, so I find that very nice.

The comments from the participants and the observations I made during the workshop seem to indicate that having experience using more than one piece of technology boosts one’s confidence when dealing with technology in general and having that outlook leads to a sense of empowerment.

Mentoring/agents of change

Two unintended items that surfaced from the data analysis was the theme of being a mentor and how mentoring relationships developed during the workshop. This was interesting for a number of reasons. Firstly, the traditional definition of a mentor is the description of a person with quite a bit of acquired knowledge that can be passed on to others who are not as experienced. It is usually a one-way relationship where the mentor passes along information to the mentee who accepts it passively (Kochan & Trimble, 2000). During the workshop activities I observed that all the participants would readily help each other when needed however there were two participants, Richard and Aron, who began to take on the roles of mentors, and to whom most of the participants would turn when they got “stuck”. This was especially pronounced in the last three days of the workshop. This relationship between mentors and mentees defied the traditional description as all the

participants had started from the same place in terms of their experience using the technology. The second interesting observation was seeing the participants help the Basic Education program instructors navigate the iPad when the instructors were looking at their posts and making corrections. In that particular instance, the typical relationship between the students and their instructors changed radically. It gave the participants a sense of emancipation as they took on the role of instructor and the instructors, on their part, seemed at ease relinquishing their usual role to support the participants' mentor state. In fact, the job of instructing was switching back and forth effortlessly between the participant and the instructor during the time a post was being corrected. Kochan and Trimble (2000) note that situations such as these of co-mentoring are made possible due to the strong ties and the respect that already exist amongst the students and instructors and that "mentoring/co-mentoring relationships that are open and trusting" (p.27) will lead to a deeper collaboration amongst groups as all those involved contribute in a meaningful manner. Stan commented on how the collaboration amongst the group had affected him,

Looking around the room here, we got all different nationalities and we learned how to do it together. We all sit out there and not everybody talks to everybody but I just found the bond between everybody ...we got a little closer and everyone learned something together at the same time. I thought that was pretty cool.

The third interesting aspect that resulted from the workshop was the desire by two of the participants to pass along what they had learned to others therefore becoming agents of change. In his first interview Richard had stated how he might want to help guide younger people find their ways by sharing his knowledge. In his second interview that desire to share and mentor was even stronger as he expressed how he thought it was

important to pass what he had learned so that “when you die it won't just go to the grave with you, all that knowledge and everything you have is like a waste.”

Marcie stated,

You aren't helping just yourself. You are telling other people that you were exposed to this technology and that technology and this is what it can do. A lot of women are in the shoes I was in. Not wanting to touch this because I have friends who don't even want to e-mail. They don't have email. So now I can introduce them to a whole other world and empower them.

The findings seem to indicate that some of the participants went through a transformation of self as they traversed from the role of mentee to mentor and back again, allowing them the opportunity to view learning and teaching from different viewpoints. Blake-Beard (2009) states that “mentoring relationships literally and figuratively provide a way for us to cross borders, to gain access to alternative perspectives, and experiences” (p.14).

Chapter 7- Discussion

"Blogging became a light. It's like grabbing a torch and running. I didn't know the world is so bright.

Marcie, workshop participant

This research project's objective was to create a greater understanding surrounding the impact blogging with iPads and iPods might have on adults with low literacy and low digital literacy skills. Some peripheral questions arose from the initial research issue and yet other inquiries have surfaced from the observations I made as the workshop progressed and through the analysis of the data. In this section I will address some of those questions and attempt to situate this project's findings in the discourse of adult literacy, the role of technology and how it is intersecting through that research and the subject of empowerment. I will also discuss the limitations of this study and future lines of inquiry into the area of adult literacy, empowerment and technology.

Adult literacy and empowerment

Self-esteem has been described as a "necessary pre-cursor to empowerment" and an important ingredient in one's overall outlook on life (United Nations, n.d.). Research has shown a strong link between academic achievement and a learner's self-esteem (Golden, 2003; Janssen, 2004; Cox, 2007; Griffith & Woong, 2010). The findings in this research project indicated that the participants felt that the knowledge they acquired had empowered them. As well, some of them indicated that this new information was impacting their educational goals. As aforementioned, adult literacy has been under-addressed in academia and that has led to the neglect of a substantial community of individuals who should be involved in the public sphere but are not adding their voices for a variety of reasons, including the fear of not having anything valuable to contribute to the discourse.

This research project attempted to evaluate the impact blogging and using different types of technology could have on an individual's self-esteem and how having a positive view of one's self could lead to feelings of empowerment. That issue is an important one to study as low self-esteem could be keeping many adults from pursuing schooling or even upgrading their educational goals. Although this project only ran for a period of six days, there was a noticeable difference in how the participants viewed themselves after the workshop.

The role of technology in adult literacy

A review of literature revealed a conspicuous gap in research dedicated to understanding the impact of tablets in adult literacy however the use of that type of technology in other learning situations, from elementary to post-secondary, has been well documented. The paucity of studies dealing with the use of tablets in adult literacy classes is part of a larger problem described in a recent report as "a dearth of research on the use of digital media in adult literacy programs" (Greig & Hughes, 2012, p. 3).

This project's findings showed the value of integrating technology in adult literacy programming for two important reasons. Learning how to operate these devices competently, "just like everyone else", as one participant stated, boosted the users' self-esteem and subsequently their feelings of empowerment allowing the participants to engage in even more complicated tasks as a result. The second reason can be found in how this type of training aligns well with the Federal government's digital economy strategy, which highlights the importance of individuals using digital technology so that Canada can be competitive on a global level (Government of Canada, 2012). The findings from this

project indicate that this gap in research on the impact of technology on adult literacy should be addressed.

Transformation of self in the social context

After the workshop concluded, the participants exhibited signs of having changed perspective on a variety of fronts, including how they felt about technology, their educational goals and how they saw themselves as both a student and facilitator of knowledge. Some of the participants embraced a new role, that of an agent of change within that particular group or a wider circle. Changing perspective is a cornerstone of transformative learning (Mezirow, 1997) and I argue that the analysis of data revealed a telling storyline involving the change of perspective the participants underwent that was enabled by the social context in which these happenings took place. Wenger (1998) describes how communities of practice transform into communities of action where ideas are shaped through the collaboration of the members of the group. The group of participants taking part in this research project formed an alliance, albeit most likely not consciously, of becoming a community of practice where risks could be taken without fear and where learning happened without impediments such lack of confidence. This situation helped foster feelings of empowerment that rippled through the group as they were faced with learning how to blog and how to operate digital technology that was unfamiliar.

Limitations

There were various limitations to this research project. The workshop was only six days long and did not allow for a deeper understanding of the participants' perspectives on

the skills they were learning and the technology they were operating, as the time they had to use the technology and to learn blogging was limited. Only one official field trip was organized and having all the participants use the same area to obtain images and video resulted in homogenous digital narratives. As well, the short time period in which the project ran resulted in a limited quantity of posts to the blog and digital narratives. It is my opinion that a more comprehensive understanding of the issues being addressed could be obtained through a longer and more sustained integration of the workshop within the basic adult education program at the Durham Region agency at which my study was conducted.

Future lines of inquiry

Some of the participants indicated an interest in continuing to write for the *Reflections* blog after the research project ended. I had initially registered *Reflections* using my personal information but I have since transferred the administration of the blog to the instructors at the agency's basic education program after they indicated an interest in using the blog in their program. Future lines of inquiry into adult literacy and blogging could include a look into participants who are still contributing to the blog and how those postings are impacting upon their educational goals.

Although not intended as an aspect that would be researched as part of this project, my observations during the workshop indicated the importance placed on the comments the participants received on their posts. These comments were posted by individuals both known and unknown to the participants. The final interviews indicated that the comments received not only raised the participants' self-esteem, as they felt their work had merit since someone was taking the time to read and comment on it, but also gave them an

opportunity to engage with the community at large as they responded to the comments. It is my opinion that further research should be done on the impact of comments on a blog and how that action can encourage an adult learner to further their educational goals.

Appendix A

**Sample interview questions for semi-structured interviews with participants
Research project: iBlog: empowering adult learners with through blogging with
iPads**

Participant Profile:

- 1) What is your age?
- 2) What is your educational background?
- 3) How would you describe yourself as a person?
- 4) Tell me about your recent school experiences and how they differ from or are similar to your earlier experiences of school.
- 5) What are your short-term and long-term educational goals?

Questions related to the research project:

Before workshop:

- 6) What are your thoughts on blogging?
- 7) What are your thoughts on using digital technology, such as an iPad?

After workshop:

- 9) What are your thoughts on blogging?
- 10) What are your thoughts on using digital technology, such as an iPad?
- 11) What are your short-term and long-term educational goals?
- 12) Has your outlook on education changed now that you have learned how to blog with a digital tablet?

Appendix B

Outline for Blogging Workshop

June 18	-Course introductions and development of class learning environment
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	<ul style="list-style-type: none"> -Present some examples of a final movie project to show what the participants will be able to accomplish by the end of the workshop -intro to iPads <ul style="list-style-type: none"> - participants play games using the iPads - guided discussion on thoughts regarding the iPads (any difficulties can be addressed) -intro to blogging <ul style="list-style-type: none"> -guided discussion regarding blogs -examples of blogs with a variety of content -show the blog the participants will be using during the workshop -creating a short post (article) with the Wordpress app -uploading a test post to the blog -ask participants to think about something they would like to blog about for the next day.
June 19	<ul style="list-style-type: none"> -participants will create a post (or two if they wish) and upload it to the blog. -discussion regarding images and posting images on the blog -demonstration of retrieving an image in the iPad library and posting to the blog -participants practice posting an image to a post
June 20	<ul style="list-style-type: none"> -participants will be encouraged to discuss ideas for their next posts (this could be in a group setting or one on one) -compose a second post -add images -publish post
June 25	<ul style="list-style-type: none"> -introduction to the iPod -demonstration of how to shoot videos and take still images -introduction to basic photo editing software -discuss ideas (one-on-one) for a final short movie project
June 26	<ul style="list-style-type: none"> -take participants out to shoot video and images with the iPod -introduction to video editing software -show examples of completed movies with photos and video -begin editing

June 27	<ul style="list-style-type: none">-edit the movies (continued)-upload the movies to YouTube and post to blog-presentation of the movies to the group and instructors
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Appendix C

iBlog: Empowering Adult Learners through Blogging with iPads

Letter of Information and Consent

Dear Participant,

You are invited to participate in a research study entitled iBlog: Empowering Adult Learners through Blogging with iPads. This study (REB File #) has been reviewed by the University of Ontario Research Ethics Board and has been approved as of..... Please read this form carefully, and feel free to ask questions you might have. *If you have any questions about your rights as a participant in this study, please contact the Compliance Officer at 905-721-8668 ext 3693 or compliance.uoit.ca.*

Researchers:

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Faculty Supervisor: Dr. Allyson Eamer, Assistant Professor

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Contact number: 905-721-8668 Ext. 3821/allyson.eamer@uoit.ca

The purpose of this study is to find out if adult learners feel empowered after blogging and, if after learning this new skill, are motivated to continue furthering their education. It is also my hope that blogging with an iPad will prove to be an effective method of teaching adult learners who are trying to enhance their literacy and digital literacy skills.

As a participant in this research project you will learn how to create content for a blog. All the content can be kept private if preferred. You will learn how to create content such as written entries, short videos and photographs. You will be using an iPad to create content for your blog and you will be using an iPod to take images and record video. You will also learn digital technology skills, such as manipulating images with photo-enhancing software; recording and editing video and learning how to save digital content to a web-based storage service. I will teach these skills at the social service agency (the name has been omitted to protect the identity of the participants) located Durham Region office at a mutually convenient time.

You will be interviewed on your thoughts on blogging with digital technology, your educational background and your current educational goals at the beginning of this research study. Once you have blogged with an iPad over a period of two weeks you will be interviewed again on whether or not you feel blogging with an iPad has given you a different perspective on learning, if you feel empowered after the experience and what your educational goals are after the experience. Each interview is expected to last 45 to 60 minutes and the interviews will be recorded using an audio recorder.

I will also conduct one focus group after the blogging experience, which is expected to last about one hour. The participants in the focus group will be asked the following questions

to discuss amongst themselves: how empowered do you feel after blogging and do you feel your educational goals have changed as a result of blogging.

Some of the potential benefits for participating in this project include learning valuable skills related to new literacies and digital technologies. You may also feel motivated to further your education in a related field such as writing, photography or video editing.

Some of the potential risks or discomforts associated with participating in this research include having participants speak about any educational challenges they may have. That interview will take place in a private setting at the JHS of Durham Region. You will have the option to not answer any of the questions during any of the interviews if you wish.

There is also a risk of loss of privacy should you wish to make your blog public. I will strongly encourage you to keep the blog private. Should you wish to make your blog public I will encourage you to use a non-identifying pseudonym. If you choose to make the blog public and under your name I will inform you of the risks involved in doing so. If after being informed of the risks of making your blog public and having it under your real name you decide you would like to do that, you will assume all responsibility for doing so.

The audio recordings of the interviews and the interview transcriptions will be stored indefinitely in password-protected folders on an external hard drive that belongs to me. The external hard drive will be placed in a filing cabinet that can only be accessed with a passcode. I will be the only person who knows the filing cabinet passcode.

Any data that you provide in the interview will be transcribed using a pseudonym so your real name will never be revealed. You may choose your pseudonym if you wish. Your privacy will be respected. No information about your identity will be shared or published without your permission, unless required by law.

Your participation is voluntary, and you can answer only those questions that you are comfortable with. The information that is shared will be held in strict confidence and discussed only between the research project faculty supervisors and myself. You are free to decline participation without explanation or consequence. You may indicate that you do not wish to participate in this project by not signing this form. Should you wish to end your participation in this study, you could inform in person or by email at anna.rodriques@durhamcollege.ca. Any data you have provided up to that point will be destroyed.

This research project has been approved by the University of Ontario Institute of Technology Research Ethics Board on May 9th, 2012. If you have any questions concerning the research study, or experience any discomfort related to the study please contact the researcher at 905-721-2000 Ext. 3666 or via e-mail at anna.rodriques@durhamcollege.ca. Any questions regarding your rights as a participant, complaints or adverse events may be addressed to Research Ethics Board through the Compliance Officer (905-721-8668 ext 3693)

You will be able to monitor the results of this research project by visiting my website: <http://annarodrigues.com>. A copy of the final research project paper will be presented to the social service agency as well. You will also be informed of publications and presentations involving your contribution to this research project.

Having read and understood this letter of information and consent form:

-I have had a chance to ask questions and my questions have been answered. I am free to ask questions about the study in the future.

-I freely consent to participate in the research study, understanding that I am free to withdraw at any time without consequence. A copy of this information letter and consent form will be given to me for my records.

-I understand that data I provide for the study (excerpts from my interview, focus group and/or blog) will be analyzed and reported on in research presentations and publications.

-I understand that my identity will remain confidential.

-I understand that I am not waiving my legal rights.

iBlog: Empowering Adult Learners through Blogging with iPads

Participant's Name (Block Capitals)

Date

Participant's signature

Researcher's signature

Appendix D

Analyzing the data through colour-coding statements

Initial themes that were identified through the general data:

Lack of confidence

Fear/Frustration with technology

Comfortable or open to using technology

Issues using the iPads/iPods

Positives about iPads/iPods

Neutral about technology

Empowerment

Mentoring/ Agents of Change

Excerpt from transcription that was colour-coded into the above themes:

Question:

How long do you think you will be in the program?

Maybe three months, maybe five. I want to make sure I am ready. I know I am not ready yet. I'm worried too because I am not technology-savvy. Even coming back here, they thought I could do Microsoft word but no I said, I don't even know the keyboard. Technology kind of scares me.

Question:

Are you getting more comfortable with it?

Like e-mailing, yes, I used to never do that. Since I came here I have to learn how to e-mail. So I am getting a little bit more comfortable.

Question:

What are your thoughts on technology in general?

It scares me. I am willing to learn because when you hear a word I don't want it to be foreign and that's another drawback and why I haven't pushed myself to go back to school - because everything is technology in there. Uploading and sending it off to your prof and it's like, wow, that's going to overwhelm me.

Question:
What exactly are you scared of?

That I make mistakes; that I go to the wrong place. E-mailing used to frustrate me; I would hear from my friends that I didn't receive it and I would say to myself, what did I do? I stopped emailing and use the phone more. I hear why don't you email instead of calling, until I got a little bit more comfortable. And texting, I don't text. I don't feel comfortable cause I tried and I had to click three times before sending.

Question:
Have you ever used a tablet or iPad?

No, I've heard the name but didn't even know what they were talking about and I didn't want to ask what is that. I am just learning the keyboard so I can start writing my reports because I have to prepare myself for college because if I have to present an essay I can't be using two fingers.

References

Abasi, A., Taylor, M., Pinsent-Johnson, C., & Evans, K. (2007). Collaborative Learning in Communities of Literacy Practice. *Adult Basic Education & Literacy Journal*, 1 (1), 4-11.

- Adelman, C. (1993). Kurt Lewin and the Origins of Action Research, *Educational Action Research*, 1(1), 7-24
- Adkins, N.R. & Ozanne. J.L. (2005). Critical Consumer Education: Empowering the Low-Literate Consumer. *Journal of Macromarketing*, 25 (2), 153-162.
- Adler, E. & Roger C. (2010). *An Invitation to Social Research: How It's Done*. (4th Ed.). Belmont, CA: Thomson/Wadsworth Publishing Co.
- Alexander, C. (2007). *Literacy Matters: a call for action*. TD Bank Financial Group Report: Toronto.
- Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010). *How learning works: Seven research-based principles for smart teaching*. San Francisco: Jossey-Bass.
- Apple. (2010). Apple introduces Apple Introduces iLife '11 With Major Upgrades to iPhoto, iMovie and GarageBand. Retrieved on September 23, 2012 from <http://www.apple.com/pr/library/2010/10/20Apple-Introduces-iLife-11-With-Major-Upgrades-to-iPhoto-iMovie-and-GarageBand.html>
- Atkinson, P. & Hammersley, M. (1998). *Ethnography and Participant Observation*. Strategies of qualitative inquiry, Sage Publications, Inc.
- Bogdan, R.C & Biklen, S.K (2003) *Qualitative Research for Education, 4th Edition*. Boston: Pearson.
- Bjarnason, D. (Reporter). (2006, May 24). Canada's Shame. *The National on the CBC Website* Retrieved on December 11, 2011 from <http://www.cbc.ca/news/background/education/canada-shame.html>
- Blake-Beard, S. (2009). Mentoring as a Bridge to Understanding Cultural Difference. *Adult Learning*, 20 (1/2), 14-18
- Blake, E & Blake. R. (2005). *Literacy Primer*. New York: Peter Lang Primer.
- Brookfield, S.D. & Holst, J.D. (2011). *Radicalizing Learning: Adult Education for a Just World*. San Francisco: Jossey-Bass.
- Borgatti, S. (2005). Introduction to Grounded Theory. Retrieved September 24, 2012 from <http://www.analytictech.com/mb870/introtoGT.htm>

Bullock, S. (2011, September 15). EDUC 5404G Course lecture.

Canadian Council on Learning (CCL). (2008). *Reading the Future: Planning to meet Canada's future literacy needs*. Ottawa: CCL.

Carter, S. (2006). Redefining Literacy as a Social Practice. *Journal of Basic Writing*, 25, (2), 94-125.

Claster, D.S. & Schwartz, H. (1972). Strategies of Participation in Participant Observation *Sociological Methods & Research*, 1 (1), 65-96.

Cohen, J.H. (2000). Problems in the Field: Participant Observation and the Assumption of Neutrality. *Field Methods*, 12, (4), 316-333.

Collier L. (2007). The Shift to 21st Century Literacies. *The Council Chronicle*, 1-5.

Comings, J (2007). Adult literacy research: opportunities and challenges, NCSALL. National Center for the Study of Adult Learning and Literacy: Cambridge.

Cox, T. D. (2007). Transformational Learning and the AAACE Conference. *Adult Learning*, 18(1/2), 18.

Cranton, P. (2012). *Planning Instruction for adult learners (3rd ed)*. Toronto: Wail & Emerson.

Cranton, P. & King, K.P. (2003). Transformative Learning as a Professional Development Goal. *New Directions for Adult and Continuing Education*, 98, 31-37

Curtis, M (2006). Review: iMovie '08. Retrieved October 3, 2012 from <http://www.macworld.com/article/1059668/imovie08.html>

DaSilva Iddings, A. C., McCafferty, S. G., & da Silva, M., Lucia Teixeira. (2011). Conscientização through graffiti literacies in the streets of a são paulo neighborhood: An ecosocial semiotic perspective. *Reading Research Quarterly*, 46(1), 5-21.

Dickerson, J., Williams, S. & Browning, J. B. (2009). Scaffolding Equals Success in Teaching Tablet PCs. *Technology Teacher*, 68(5), 16-20.

- Eamer, A. (2006). Confessions of a Transplanted Mind: Using Stories of Class Mobility to Explore Social Class. A presentation at the conference of the Canadian Society for Studies in Education, May 2007, York University, Toronto ON.
- Eaton, M. (2012). Solving the Skills Crisis. Retrieved April 12, 2012 from <http://www.theglobeandmail.com/partners/advabcliteracy0312/solving-the-skills-crisis/article4096479/>
- Elmir R, Schmied V, Jackson D & Wilkes, L. (2011) Interviewing people about potentially sensitive topics. *Nurse Researcher*. 19 (1), 12-16.
- Freire, P. *Pedagogy of the Oppressed, 30th Anniversary ed.* New York: 1999.
- Freire, P. & Macedo, D. (1987). *Literacy: Reading the word and the world*. Greenwood, CT: Praeger
- Giroux, H. A. (2001). Culture, power and transformation in the work of Paulo Freire. In F. Schultz (Ed.), *SOURCES: Notable selections in education* (3rd ed.) (pp. 77 - 86). New York: McGraw Hill Dushkin.
- Giroux, H. (2010). Lessons from Paulo Freire. *The Chronicle of Higher Education*. Retrieved December 3, 2011 from <http://chronicle.com/article/Lessons-From-Paulo-Freire/124910/>
- Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, 8 (4), 597-607.
- Golden, S. (2003). Self-Efficacy: How Does It Influence Academic Success? *Adult Learning*, 14(3), 14-16.
- Government of Canada (2012). The Digital Economy in Canada. Retrieved October 3, 2012 from <http://www.ic.gc.ca/eic/site/028.nsf/eng/Home>
- Greigg, C. & Hughes, J. (2012). *Adult Learners and Digital Media*. AlphaPlus: Toronto.
- Griffith, M. and Woong, L. (2010). Empowering adult learners through blog – an australian case study. *Adult learning in the digital age: perspectives on online technologies and outcomes*. United States of America: Information Science.
- Gyabak, K. & Solis, G. (2011). An evaluation on the efficacy of social networking tools to enhancing active learning and promoting lifelong learners in online graduate nursing education. *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2011*, 1235-1244.

- Heaney, T. (2005). Issues in Freirean pedagogy. *Freire Issues*. Retrieved September 15, 2011 from <http://www3.nl.edu/academics/cas/ace/resources/documents/FreireIssues.cfm#conscientization>
- Hoffman, E. (1990). *Lost in Translation: A life in a new language*. New York: Penguin Books.
- Hoskyns, S. (2011). Collaborative conversations in focus group research: Music therapists reflect on combining research and practice. *The New Zealand Journal of Music Therapy*, 9, 32-60.
- Janssen, O. (2004). The impact of learning. *Adults Learning*, 15(9), 24-26.
- Johnson, B.R & Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33 (7), 14-26.
- Johnson, D. (2010). Teaching with authors' blogs: connections, collaboration, creativity. *Journal of Adolescent & Adult Literacy* 54(3), 172-180.
- Jones, M, Kriflik, G & Zanko, M. (2012). Grounded Theory: A theoretical and practical application in the Australian Film Industry. Retrieved October 1, 2012 from <http://ro.uow.edu.au/commpapers/46>
- Jones, S. J. (2006). Blogging and ESL writing: A case study of how students responded to the use of weblogs as a pedagogical tool for the writing process approach in a community college ESL writing class. Doctoral dissertation, The University of Texas at Austin.
- Kidd, T. T. & Keengwe, J. (2010). *Adult learning in the digital age: Perspectives on online technologies and outcomes*. United States of America: Information Science.
- Kilgore, D.W. (1999). Understanding learning in social movements: a theory of collective learning. *International Journal of Lifelong Education*. 18 (3), 191-202.
- Kincheloe, J. (2005). *Critical Pedagogy Primer*. New York: Peter Lang Primer.
- Kitzinger, J. (1994). The methodology of Focus Groups: the importance of interaction between research participants. *Sociology of Health & Illness*, 16 (1), 103-121.
- Kochan, F.K. & Trimble, S.B. (2000). From Mentoring to Co-Mentoring: Establishing Collaborative Relationships Theory into Practice, 39, (1), *New Visions of Mentoring*, 20-28.
- Koehler, M. (2011). What is TPACK? Retrieved October 4, 2012 from <http://www.tpck.org/>

- LaRossa, R. (2005). Grounded theory methods and qualitative family research. *Journal of Marriage and Family*, 67(4), 837-857.
- Liebow, E. (1993). *Tell them who I am: the lives of homeless women*. The Free Press: New York, New York.
- Hansen, R., & Brady, E. (2011). Solving Problems Through Action Research. *LLI Review*, 682-90.
- Harste, J.C. (2003). What do we mean by literacy now? *Voices from the Middle*, 10 (3), 8 – 13.
- Human Resources and Skills Development Canada. (2012). *Indicators of well-being in Canada*. Retrieved September 1, 2012 from <http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=31>
- Knowles, M., Holton, E. F. III & Swanson, R. A. (2005). *The adult learner: The definitive classic in adult education and human resource development* (6th ed.). Burlington, MA: Elsevier.
- Livingstone, D. W. (2007). Re-exploring the icebergs of adult learning: comparative findings of the 1998 and 2004 Canadian surveys of formal and informal learning Practices 1. *The Canadian Journal for the Study of Adult Education*, 20 (2), 1-24.
- Lohr, M. (2011). e-Learning using iPads. 11th IEEE International Conference on Advanced Learning Technologies.
- MacGillivray, L., & Curwen, M. (2007). Tagging as a social literacy practice. *Journal Of Adolescent & Adult Literacy*, 50(5), 354-369.
- Manuguerra, M., & Petocz, P. (2011). Promoting student engagement by integrating new technology into tertiary education: The role of the iPad. *Asian Social Science*, 7 (11), 61-65.
- Markoff, J. (2007). "New Mobile Phone Signals Apple's Ambition". Retrieved September 29, 2012 from http://www.nytimes.com/2007/01/09/technology/09cnd-iphone.html?_r=2
- Maybin, J. (Ed.). (1994). *Language and literacy as social practice*. London: The Open

University.

- Maxwell, J. & Teplova, T. (2007). Social consequence of low language/literacy skills. *Encyclopedia of Language and Literacy Development*. Retrieved December 2, 2011 from <http://www.literacyencyclopedia.ca/pdfs/topic.php?topId=34>
- Mein, E. (2010). Women's Literacy and Numeracy Practices Oriented Toward Small-Scale social Action in Northern Mexico. *Adult Basic Education & Literacy Journalism*, 4 (2), 86-95.
- Merchant, G. (2009). Web 2.0, new literacies, and the idea of learning through participation *English Teaching: Practice and Critique*. 8 (3), 107-122.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions For Adult & Continuing Education*, (74), 5.
- Miles, M.B. & Huberman, A.M. (1994) *Qualitative Data analysis, 2nd edition*. Thousand Oaks, CA: Sage.
- Mills, K. A., & Chandra, V. (2011). Microblogging as a Literacy Practice for Educational Communities. *Journal Of Adolescent & Adult Literacy*, 55(1), 35-45.
- Ministry of Training, Colleges and Universities. (2011). Ontario Adult Literacy Curriculum Framework. Employment Ontario: Ontario.
- Ministry of Training, Colleges and Universities. (2011). *Literacy and Basic Skills*. Retrieved December 1, 2011, from <http://www.tcu.gov.on.ca/eng/training/literacy/index.html>
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1), 60-92
- News BNN. (2011, October 17). Tablet PC Project aims to inform illiterate. *News BNN* website. Retrieved December 10, 2011 from <http://www.newsbnm.com/technology/tablet-pc-project-aims-to-inform-illiterate/>
- Norton Peirce, B. (1995). Social identity, investment, and language learning. *TESOL Quarterly*, 29(1), 9-31.
- O'Brien, R. (2001). Um exame da abordagem metodológica da pesquisa ação [An Overview of the Methodological Approach of Action Research]. In Roberto Richardson (Ed.),

- Teoria e Prática da Pesquisa Ação [Theory and Practice of Action Research]*. João Pessoa, Brazil: Universidade Federal da Paraíba. (English version) Available: <http://www.web.ca/~robrien/papers/arfinal.html>.
- Ontario Literacy Coalition (OLC). (2009). *Literacy in Ontario*. Toronto: OLC.
- Papen, U. (2005). *Adult Literacy as Social Practice : More Than Skills*. Florence: Routledge.
- Park, Y., Heo, G. M. & Lee, R. (2011). Blogging for informal learning: Analyzing bloggers perceptions using learning perspective. *Educational Technology & Society*, 14 (2), 149-160.
- Pignone, M., Dewalt, D. A., M.D., Sheridan, S., Berkman, N., & Lohr, K. N. (2005). Interventions to improve health outcomes for patients with low literacy. *Journal of General Internal Medicine*, 20 (2), 185-92.
- Roschelle, J., Tatar, D., Chaudhury, S. R., Dimitriadis, Y., Patton, C., & DiGiano, C. (2007). Ink, improvisation, and interactive engagement: Learning with tablets. *Computer*, 40(9), 42.
- Rosewell, J. & Burke, A (2009). Reading by Design: Two Case Studies of Digital Reading Practices. *Journal of Adolescent & Adult Literacy* 53(2), 106-118.
- Searle, J. (n.d.). What is literacy? Retrieved September 28, 2012 from <http://www.acal.edu.au/publications/newsletters/LLMar99/jean.searle.html>
- Shareski, D. (2011). Why the iPad is Different. *Technology & Learning*, 31(10), 58.
- Sheetz, D. & Curcher, M. (2008). Using blogs to enhance content learning for students who are learning in a second language. In C. Bonk et al. (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2008* (1254-1259). Chesapeake, VA: AACE.
- Spencer, B. (2006). *The Purposes of Adult Education. A Short Introduction*. Toronto: Thompson Educational Publishing.
- Statistics Canada. (2005). *Building on our competencies: Canadian results of the International Adult Literacy and Skills Survey*. Ottawa: Statistics Canada.

- Taylor, D. (n.d.). The literature review: a few tips on conducting it. Retrieved September 20, 2012 from <http://www.writing.utoronto.ca/advice/specific-types-of-writing/literature-review>
- Terry, M. (2005). Making a difference in learners' lives: results of a study based on adult literacy programs. *Adult Basic Education*. 16 (1), 3-19.
- Tough, A. (1999, February 19). NALL Working Paper #08-1999, "Reflections on the Study of Adult Learning: A brief talk at the 3rd New Approaches to Lifelong Learning (NALL) Conference, Ontario Institute for Studies in Education of the University of Toronto.
- UNESCO. (2001). *Monitoring Report on Education for All*. New York: UNESCO.
- United Nations, (n.d.) Fostering self-esteem and empowerment. Retrieved September 27, 2012 from <http://www.un.org/wcm/content/site/sport/home/unplayers/memberstates/pid/14318>
- Urbach, J. (2012). Beyond Story Grammar: Looking at Stories Through Cultural Lenses. *Education & Urban Society*, 44(4), 392-411.
- Van Oostveen, R., Muirhead, W. & Goodman, W. (2011). Tablet PCs and reconceptualising learning with technology: a case study in higher education. *Interactive Technology and Smart Education*, 8(2), 78-93.
- Vygotsky, L. (1978). *Mind in society: Development of higher psychological processes*. Cambridge: Harvard University Press
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.
- Wilson, A. (2009). Literacy and Writing: Ideology in Practice. *Reviews In Anthropology*, 38(4), 290-307.
- Woyke, E. (2011) Tablets Attracting Repeat Buyers. *Forbes.com*. Retrieved December 11, 2011 from <http://www.forbes.com/sites/elizabethwoyke/2011/12/08/tablets-attracting-repeat-buyers-unemployed-says-study/>
- Wordpress.org (n.d.). What is a blog? Retrieved December 10, 2011 from http://codex.wordpress.org/Introduction_to_Blogging

YouTube. (2011). *Asiaa Khatun learns how to write bengali alphabets using amadeyr tablets*.
Available from <http://www.youtube.com/watch?v=ZkPDVL1ww0E>